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Preliminary Results of Passive Microwave Snow Experiment During February and March 1978

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D. Ellerbruch, G. Counas, R. Wittmann,
and R. Jones

MARCH 1979

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National Aeronautics
and Space Administration

**Scientific and Technical
Information Office**

1979

This document makes use of international metric units according to the Systeme International d'Unites (SI). In certain cases, utility requires the retention of other systems of units in addition to the SI units. The conventional units stated in parentheses following the computed SI equivalents are the basis of the measurements and calculations reported.

ABSTRACT

The purpose of this experiment was to determine if remote microwave sensing of snowpack data could be used to predict runoff, thereby allowing more efficient management of the water supply. A four-frequency microwave radiometer system was attached to a truck-mounted aerial lift and was used to gather data on snowpacks at three different sites in the Colorado Rocky Mountains. Ground truth data measurements (density, temperature, grain size, hardness, and free-liquid water content) were taken at each site corresponding to each microwave scan. Although the detailed analysis of these data is not yet complete, understanding of microwave sensing has been enhanced considerably.

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PRELIMINARY RESULTS OF PASSIVE MICROWAVE SNOW EXPERIMENT DURING FEBRUARY AND MARCH 1978

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INTRODUCTION

Runoff from melting snow provides greater than 65 percent of the streamflow for most of the mountainous western United States. Timely and accurate prediction of the amount of runoff would allow more efficient management of the scarce water supply for hydropower generation, irrigation, and domestic and industrial water use.

In order to monitor the snow resources to predict runoff, it is necessary to measure the water equivalent, free-water content, and covered area of snowpacks. In addition to the snow properties (e.g., temperature profile, density, grain size), the condition of the underlying soil surface is especially important for estimating the amount of snow-melt water that will reach the stream channel as runoff. Presently, data needed for runoff predictions are obtained from in-situ measurements of snow depth, density, and water equivalent along preselected snow courses. Measurements using these methods are difficult to obtain in severe weather conditions; hence, data for snowmelt models in watershed runoff forecasting are frequently insufficient.

Remote sensing techniques may provide data more suitable to model calculation because of their capability of making measurements over the entire watershed area in a relatively short time period. Estimates of snow-covered areas from satellite-borne visible and infrared images for several test watersheds correlate well with the runoff yields (Reference 1). This seems to be a new and promising technique for runoff forecasts. However, the capabilities of the visible and infrared images are limited by the penetration of these short wavelengths through clouds and snowpacks.

Microwaves are largely unaffected by clouds and can penetrate through snow, the depth of penetration depending on the wavelength. Therefore, the development of a technique for the remote sensing of snow-water equivalent over large areas would seem promising. Microwave sensing is one of the most promising techniques because of the volume scattering properties of snow grains at microwave wavelengths. Recent studies (References 2 and 3) showed that multifrequency microwave measurements could be used to infer these interesting snow parameters.

A truck-mounted multifrequency microwave radiometer system (5.0, 10.7, 18, and 37 GHz) was used to conduct field experiments in the Rocky Mountains of Colorado during February and March of 1978. The truck mobility allowed experimenters to move from one test site to another with relative ease and speed. This system was integrated by personnel of the National Aeronautics and Space Administration/Goddard Space Flight Center in cooperation with the National Bureau of Standards.

EXPERIMENTAL APPARATUS AND PROCEDURES

Four radiometers (5, 10.7, 18, and 37 GHz) were mounted on a metal-framed enclosure that could be controlled by an aerial lift. The truck-mounted hydraulically operated boom had a maximum length of 14 m when all three sections were fully extended. The boom could be moved in both elevation and azimuth. Also, the instrument unit could be rotated in an elevation plane. The rotation, coupled with the elevation movement and telescoping of the boom, allowed experimenters to vary the incidence angle and location for the measurements.

All four radiometers measured both vertically and horizontally polarized electromagnetic waves. The antennas were corrugated horns with low sidelobes. The nominal 3-dB beam widths were 6° except the 5-GHz unit, which was 15° . The radiometers were comparison or Dicke types with square waves for modulation and synchronous detection. The noise-equivalent brightness temperature (temperature sensitivity) was about 1 K with 0.1-sec integration time. In this experiment, more than 60 samples of brightness temperature measurements were taken and averaged for each single data point to improve measurement precision. The radiometers were calibrated internally every 16 seconds by switching the inputs from the antenna to a "hot" load and a liquid-nitrogen "cold" load. The hot-load temperature and the physical temperature of the antenna were also monitored. External calibration was achieved by viewing the clear sky and an ambient-temperature Eccosorb target.

Most brightness-temperature data were obtained by scanning the instrument unit. Two different types of scanning procedures were used in measuring the brightness temperature as a function of incidence angle. In "swath" scanning the radiometer antenna is scanned in a vertical plane gradually from nadir (normal incidence) until it is almost perpendicular to the

nadir. Meanwhile, the antenna remains in a fixed position. Therefore, the antenna actually views at different spots along a radial "swath" as the incidence angle changes. Under this condition, any inhomogeneity of the snowfield could modify the characteristic of the angular dependence. In order to remove the potential field inhomogeneity effect, the experimenters scanned the radiometer antenna such that it always viewed the same "spot" while the incidence angle changed. In addition to the scanning measurement, several time-sequence measurements were made to study the diurnal effect on microwave snow signatures.

Physical characterizations of the snowpack ("ground truth") were also made along with the microwave measurement. Snow density and temperature were documented for every 5 cm of snow depth. The relative hardness or strength of each layer of snow was measured by a ram penetrometer (see figures A-1 to A-8 in Appendix A). Also, visual inspections were made of the average grain size of the snowpack at different depths. Liquid-water contents were measured by centrifuge method and freezing calorimetry (see figures A-9 to A-16 in Appendix A).

The truck unit performed microwave measurements at three sites, covering both shallow uniform packs in a valley as well as smaller and deeper packs in a high-elevation mountain pass. One of the valley sites was located at Hideaway Park, Colorado (adjacent to State Highway 40 between the towns of Hideaway Park and Fraser), with a uniform snow depth of 60 to 70 cm in February 1978. The high-elevation site (3658 m) was near Pass Lake of Loveland Pass, where the snow depth was about 2.4 to 3 m during the measurement. The third site was located in a valley south of the town of Steamboat Springs, Colorado, with about 77 cm of wet snow near the end of March 1978.

MICROWAVE RADIOMETRIC OBSERVATIONS

The magnitude of the brightness temperatures for the four radiometers were determined by comparing the radiation received by the antenna with an internal "hot" load at about 310 K and a liquid nitrogen "cold" load at about 77 K. The calibration of each radiometer system was checked by aiming the antenna at targets whose brightness temperatures could be calculated. These targets were Eccosorb absorber and the cold sky. The results of a typical check for the calibration targets are listed in Table 1. The calculated sky temperature included the effect of a dry atmosphere and used the snow temperature of 273 K (0°C), observed by the thermometer. The temperatures for the Eccosorb were those measured by the thermocouple inserted inside the microwave absorber. In this case the observed values generally differed less than 10 K from the calculated brightness temperature. For the range of brightness observed in this experiment, the error should be comparable to the difference shown in Table 1. Appendix B lists all the calculated brightness temperatures and physical temperatures of the hot load and of the antenna collected in this experiment.

Table 1
Comparisons of Observed and Calculated Brightness Temperatures

Target	Brightness Temperature (K)			
	Observed		Calculated	Difference (observed - calculated)
Sky	5	V 2.6	4.9	- 2.3
		H 5.4		0.5
	10	V 2.9	5.2	- 2.3
		H 4.5		- 0.7
	18	V 10.0	6.9	3.1
		H 10.0		3.1
	37	V 9.6	12.3	- 2.7
		H 24.6		12.3
Eccosorb	5	V 288.8	288.6	0.2
		H 289.1	288.6	0.5
	10	V 287.1	288.1	- 1.0
		H 286.8	288.1	- 1.3
	18	V 279.8	288.1	- 8.3
		H 284.3	288.1	- 3.8
	37	V 285.1	288.1	- 3.0
		H 287.4	288.1	- 0.7

SUMMARY AND CONCLUSIONS

The primary goal of the experiment was to study the feasibility of measuring snow depth, density, and nonuniform vertical grain-size distribution of a snowpack by multichannel microwave measurement. A total of about 30 days' snowfield data were collected at three different test sites. Calibration of the radiometric data and compilation of all the ground truth data have been completed. Although the detailed analysis of these data has not been completed, our understanding of the microwave signatures of snowfields and how these signatures can be exploited to give us the information we seek has been enhanced considerably.

By reviewing the radiometric data, it is obvious that those brightness-temperature data taken before any significant melting occurred match quite well with the calculated results from a microscopic scattering model (Reference 2). However, after the snowpack underwent freeze/thaw cycles, the measured brightness generally did not match the results of the simple model. This is probably due to the layering effect generated by the refreezing of free water within the snowpack. In order to remove possible ambiguities due to this effect, multichannel data are required to retrieve those snow parameters which are pertinent to the runoff-model prediction.

The measured 37-GHz brightness temperatures showed considerable effect of volume scattering by the snow grain. This effect is much less distinct for the 5-GHz when comparing the brightness temperature for a natural pack and a wind-drift pack. The 37-GHz brightness temperature for a wind-drift pack is generally about 40 K higher than the naturally compacted snow pack. We attributed the warmer brightness temperature of the wind-drift pack to its smaller average grain size (0.5 mm), which scatters less.

The brightness temperature changed drastically when a small amount of free water existed within the snowpack. The 37-GHz brightness changes first because at this frequency most of the microwave radiation was emitted from a thin layer of snow exposed to the warmer snow-air interface. This increase of brightness temperature can be explained qualitatively by the calculations made by Chang and Gloersen (Reference 3). When there is more than 10 percent free water within the snowpack, the measured brightness temperatures for all four frequencies were very close to the physical temperature of the snowpack. This characteristic may be used to determine the onset of melting of the snowpack.

REFERENCES

1. Rango, A., V. V. Salomonson, and J. L. Foster, "Employment of Satellite Snowcover Observations for Improving Seasonal Runoff Estimates," Proceedings of a Workshop on Operational Applications of Satellite Snowcover Observations, NASA SP-391, 1975, pp. 157-174.
2. Chang, T. C., P. Gloersen, T. Schmugge, T. T. Wilheit, and H. J. Zwally, "Microwave Emission from Snow and Glacier Ice," Journal of Glaciology, Vol. 16, 1976, pp. 23-39.
3. Chang, T. C., and P. Gloersen, "Microwave Emission from Dry and Wet Snow," Proceedings of the Workshop on Operational Applications of Satellite Snowcover Observations, NASA SP-391, 1975, pp. 399-407.

APPENDIX A GROUND TRUTH DATA

In order to better understand the relationship between the measured brightness temperature and the physical characteristics of the snowpack, snow-density and temperature profiles, relative hardness, and free-liquid water content were documented for each test site during this experiment. Simple descriptions of each measurement are given, and the measured ground truth data are shown in figures A-1 to A-16.

SNOW DENSITY

Snow-density samples were taken with a cubic box with a volume of 100 cm³. The box was inserted parallel to the snow layering for layer properties. Snow density was computed by comparing the weight of the box when empty and when filled with snow.

SNOW TEMPERATURE

Snow temperatures were taken by inserting into the snowpack a copper-constantan thermocouple, mounted on the tip of a stainless steel tube. After the thermocouple reached apparent equilibrium, the temperature was recorded from the digital readout (accurate within $\pm 0.1^{\circ}\text{C}$).

RAM PENETROMETER

This instrument is driven slowly into the snowpack by blows from a hammer that is dropped down a guide rod from known heights. After one or more blows (depending on the hardness of the snowpack), the penetration of the ram is noted. The ram gives quick and convenient information about the relative strength of the snowpack without excavating a pit. From ram penetration data, it is possible to compute a relative strength index called the “ram number.” The equation for computing the ram number is

$$R = T + H + \frac{nfH}{p}$$

when

R = the ram number

T = the mass of the tube

H = the mass of the hammer

n = the number of blows of the hammer

f = the fall height of the hammer

p = the penetration after n blows

MEASURED DENSITY, HARDNESS, TEMPERATURE, AND RAM NUMBER

Figures A-1 to A-8 show the actual measurements of density, hardness, temperature, and ram number taken during the experiment.

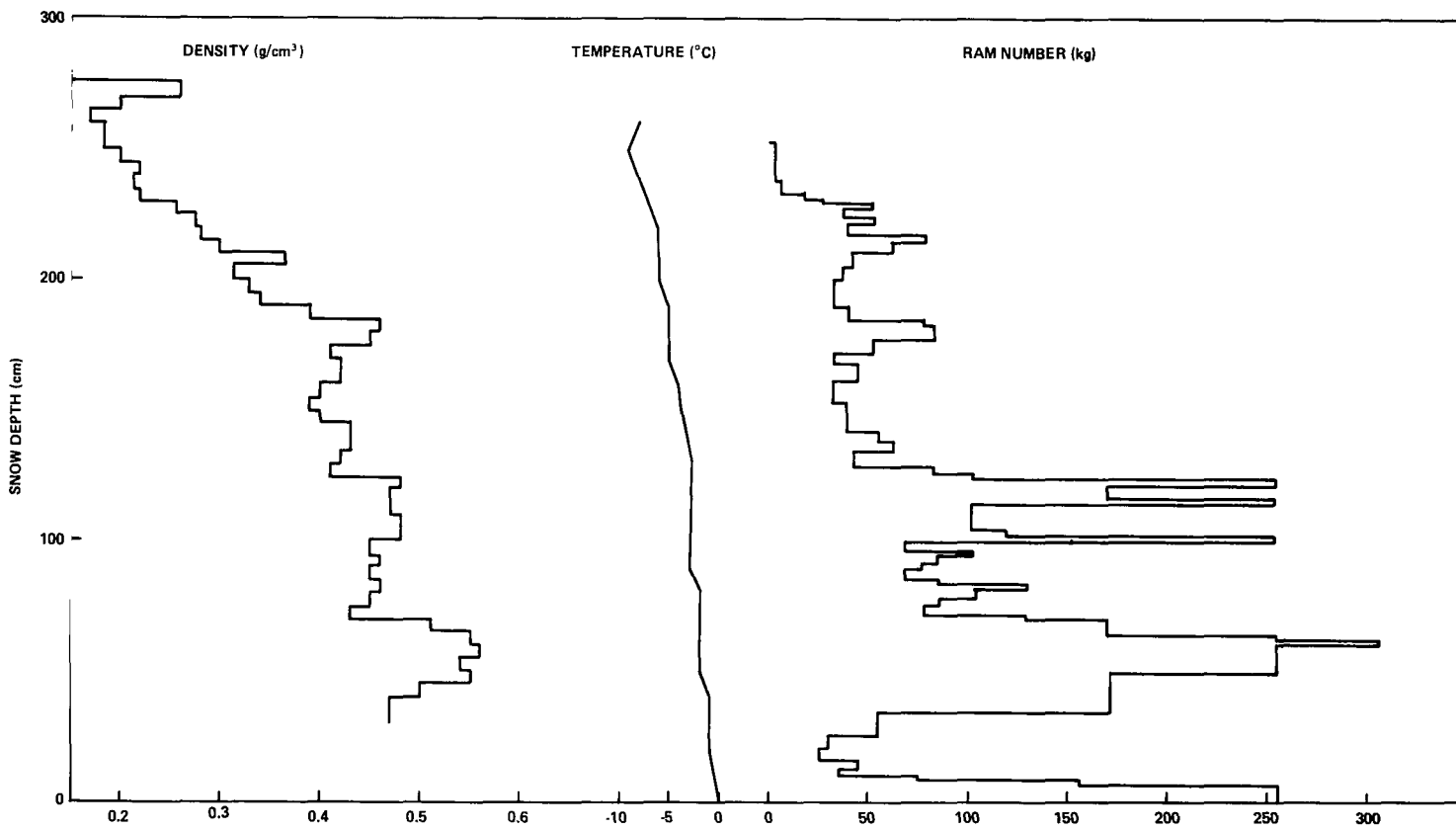


Figure A-1. Loveland Pass site I, March 17, 1978.

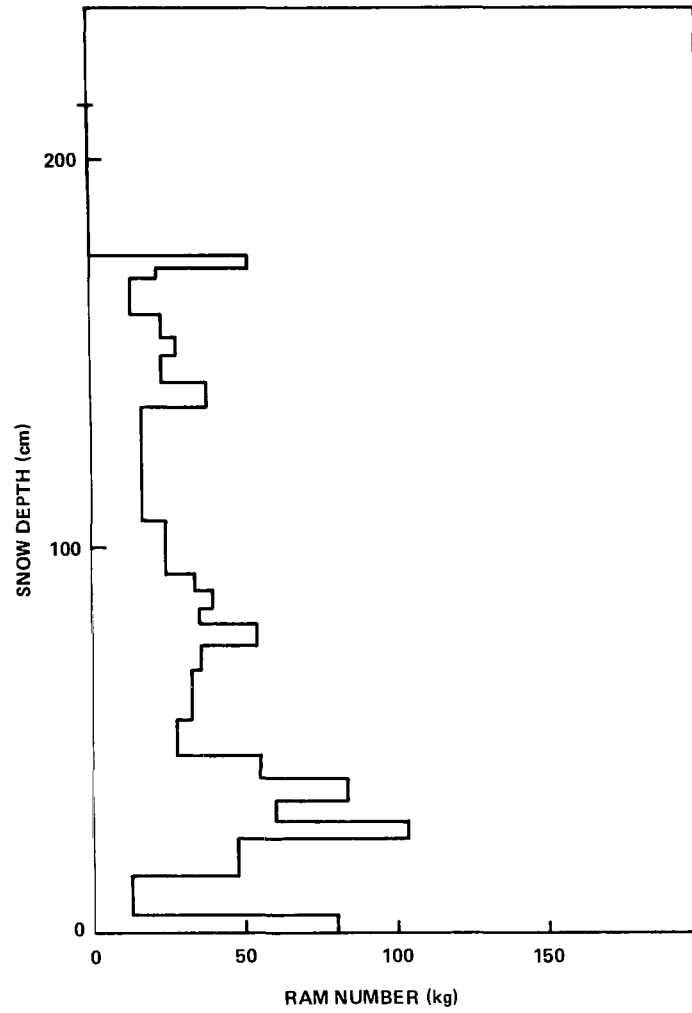


Figure A-2. Loveland Pass site III, March 17, 1978.

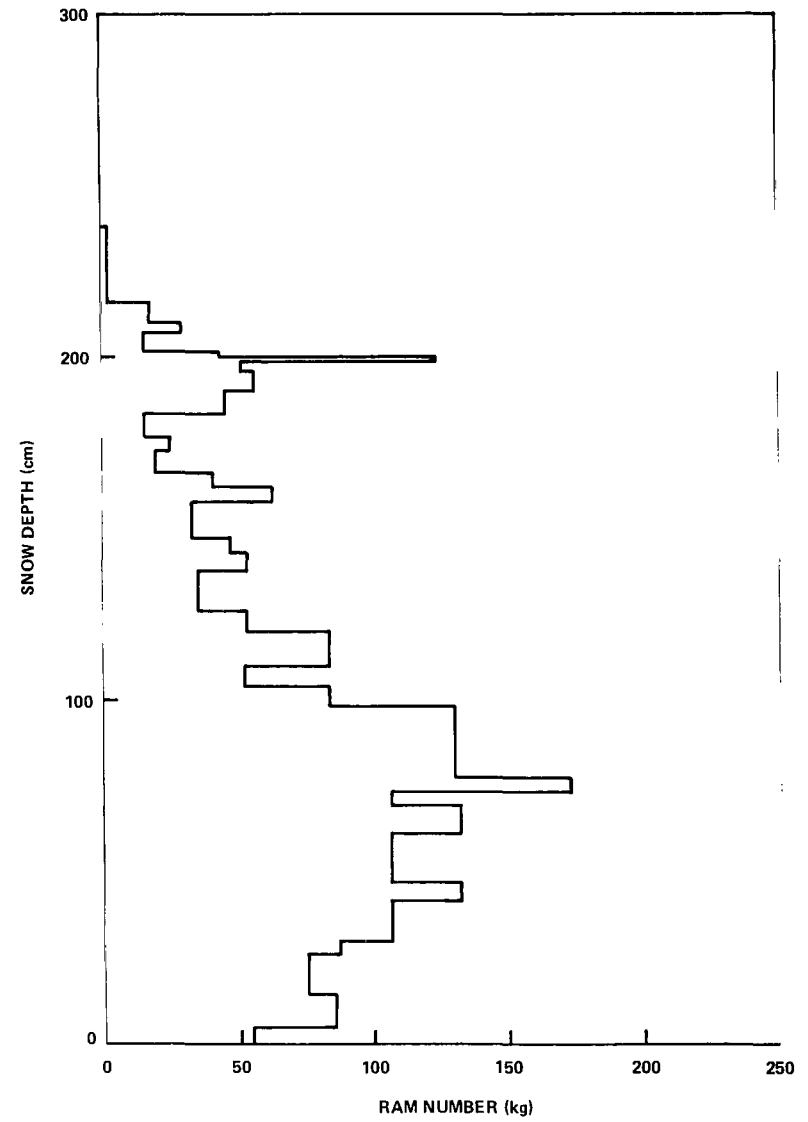


Figure A-3. Loveland Pass site IV, March 17, 1978.

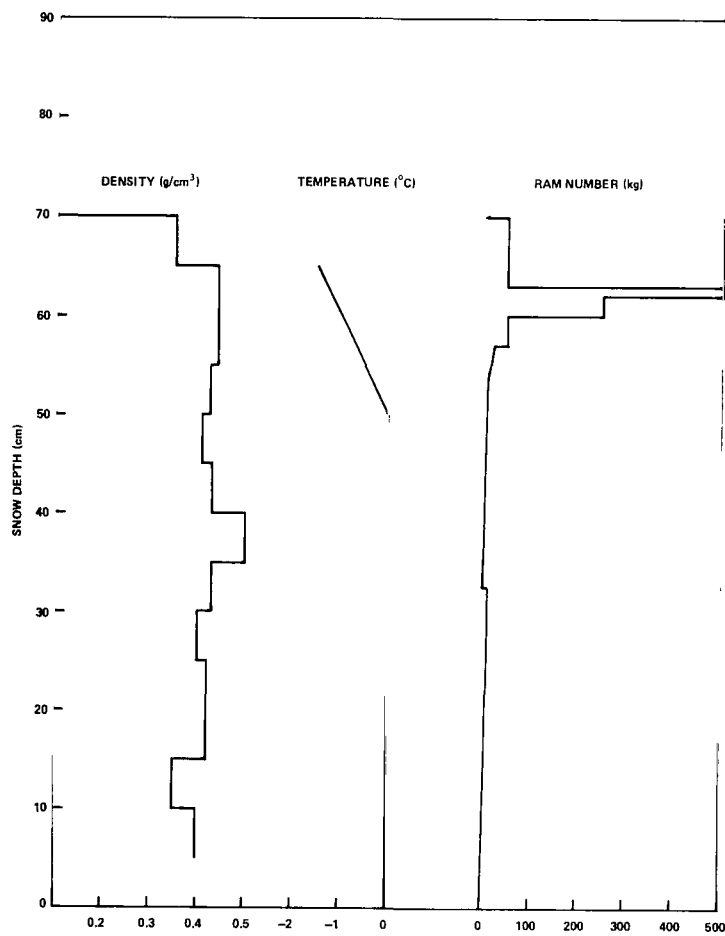


Figure A-4. Steamboat Springs haystack site, March 28, 1978.

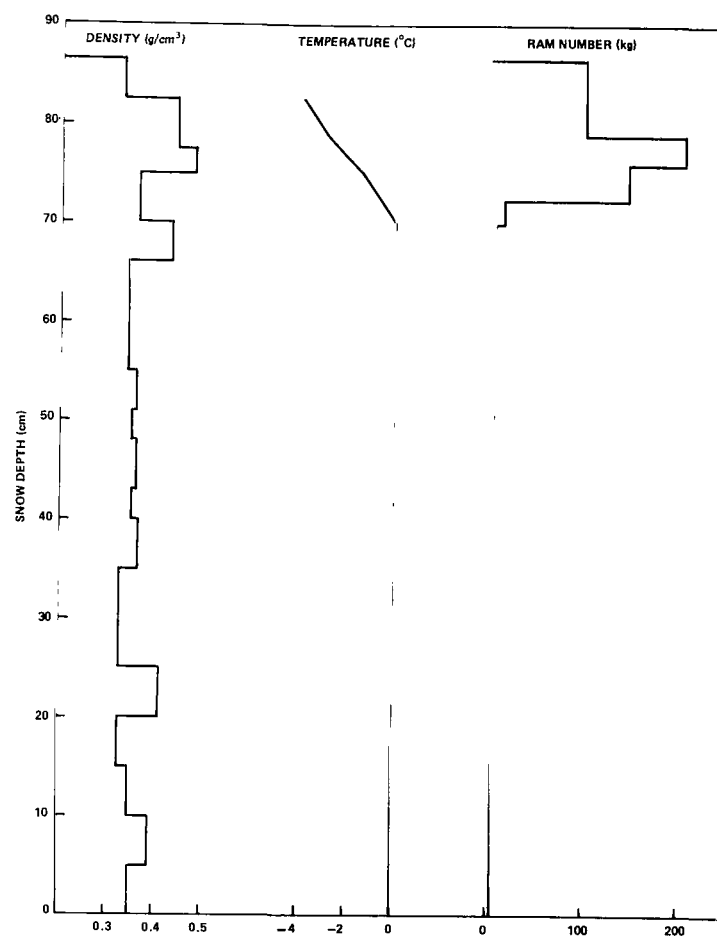


Figure A-5. Steamboat Springs mile 3 site, March 29, 1978.

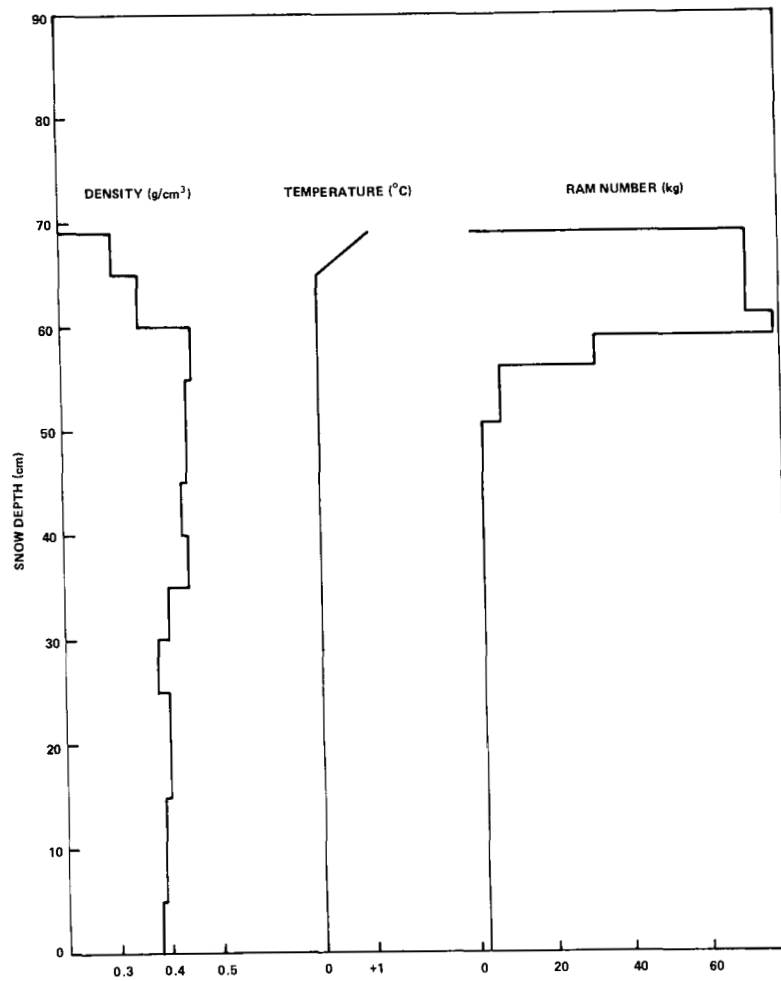


Figure A-6. Steamboat Springs mile 4 site, March 29, 1978.

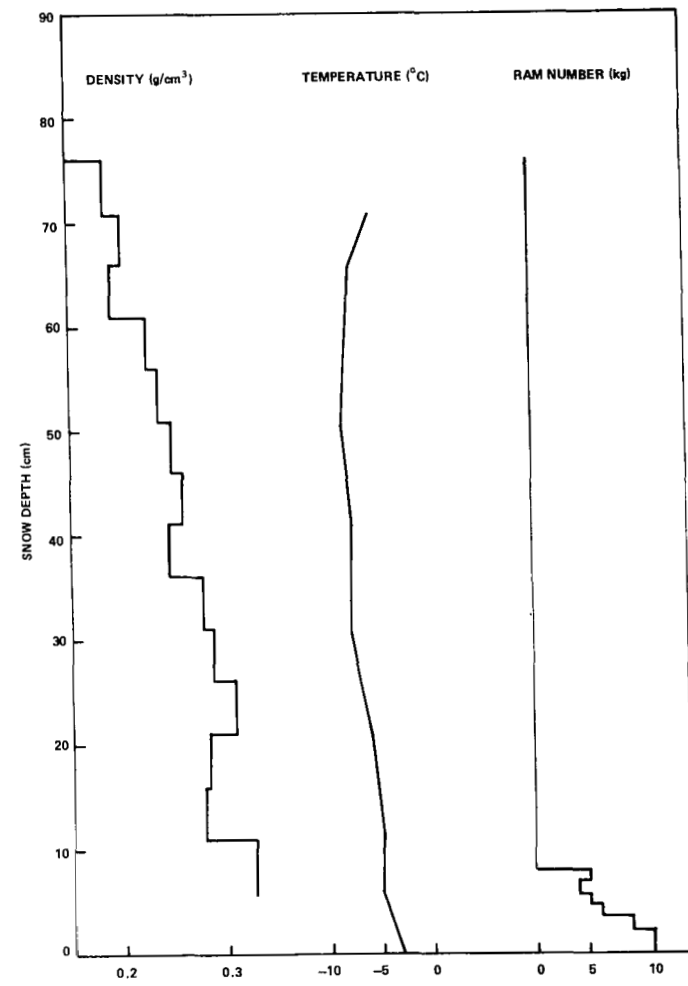


Figure A-7. Regis College pasture site I, February 17, 1978.

APPENDIX B

SNOW BRIGHTNESS TEMPERATURES

The following printout shows the calculated brightness temperatures, arranged in chronological order. The incidence angle, the interpreted hot-load temperature, the antenna temperature for each radiometer, and remarks are also listed,

where

REC #	=	record number
INCLIN	=	incidence angle in degrees of inclination
T(V)	=	brightness temperature, vertical polarization (K)
T(H)	=	brightness temperature, horizontal polarization (K)
HOT LD	=	hot calibration load temperature (K)
ANT	=	physical temperature of the antenna (K)
MON	=	month of the year
DAY	=	day of the month
HR	=	hour
MIN	=	minute

1978 SMR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 2/15/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	INC	SCAN
1	2	15	14	0	45	267.2	254.0	303.0	284.0	INC=2.7V	SCAN
					5 GHZ	257.4	240.2	311.6	284.0		
					10 GHZ	266.3	257.1	299.1	284.0		
					37 GHZ	220.0	212.4	306.2	280.7		
2	2	15	14	30	40	266.8	254.1	302.2	285.6	INC=+.14V	SCAN
					5 GHZ	257.6	239.6	311.1	285.6		
					10 GHZ	265.4	253.9	300.4	306.2		
					37 GHZ	217.1	211.8	305.4	279.9		
3	2	15	14	35	30	264.8	255.9	302.1	284.6	INC=-.224V	SCAN
					5 GHZ	259.2	251.6	311.1	284.6		
					10 GHZ	266.0	259.2	300.3	301.1		
					37 GHZ	214.7	214.0	305.1	279.7		
4	2	15	14	40	20	261.2	256.0	301.9	284.6	INC=-.58V	SCAN
					5 GHZ	256.9	252.4	311.1	284.6	STILL LEAKS LN2 -	
					10 GHZ	265.4	261.9	300.0	299.4	NO 10 DEG & NADIR DATA	
					37 GHZ	209.2	208.6	304.7	279.4		
5	2	15	14	55	20	257.9	252.4	301.3	281.6	INC=-.55V	SPOT
					5 GHZ	258.7	256.4	311.2	281.6		
					10 GHZ	264.2	260.8	298.1	286.3		
					37 GHZ	210.0	209.5	303.2	277.9		
6	2	15	15	2	30	260.9	251.6	301.1	280.5	INC=-.27V	SPOT
					5 GHZ	259.0	252.2	311.1	280.5		
					10 GHZ	265.4	259.5	297.7	283.6		
					37 GHZ	218.1	215.5	302.9	277.6		
7	2	15	15	7	40	263.4	247.4	300.9	279.9	INC=+.18V	SPOT
					5 GHZ	259.6	244.0	311.1	279.9		
					10 GHZ	264.8	255.8	297.6	282.4		
					37 GHZ	221.7	212.8	302.7	277.6		
8	2	15	15	13	50	265.1	239.9	300.8	279.9	INC=+.52V	SPOT
					5 GHZ	259.7	240.9	311.0	279.9		
					10 GHZ	265.7	251.7	297.5	283.6		
					37 GHZ	222.9	205.4	302.6	277.2		
9	2	15	15	20	50	261.9	227.3	300.6	282.1	INC=+.53V	ROUGH SURFACE
					5 GHZ	253.9	227.5	310.8	282.1		
					10 GHZ	263.3	251.2	297.7	296.2		
					37 GHZ	215.1	208.9	302.6	277.0		
10	2	15	15	30	60	261.9	229.0	300.4	283.7	INC=+.87V	SPOT
					5 GHZ	258.0	229.5	310.7	283.7		
					10 GHZ	266.3	249.8	297.6	307.5		
					37 GHZ	219.8	202.9	302.6	276.6		

1978 SMMR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 2/15/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 11,					INCLIN = 75	T(V)	T(H)	HOT LD.	ANT.	
MON = 2					5 GHZ	236.9	188.1	300.4	284.0	INC=1.35V SPOT
DAY = 15					10 GHZ	240.7	201.0	310.6	284.0	
HR = 15					18 GHZ	260.2	208.1	297.6	309.4	
MIN = 32					37 GHZ	196.5	167.0	302.7	276.8	
REC # 12,					INCLIN = 130	T(V)	T(H)	HOT LD.	ANT.	
MON = 2					5 GHZ	-7.3	-2.5	300.3	284.6	-6C AIR TEMP. CLEAR SKY.
DAY = 15					10 GHZ	8.1	8.0	310.6	284.6	INC=2.66V
HR = 15					18 GHZ	19.0	24.8	297.5	313.1	
MIN = 37					37 GHZ	16.8	30.6	302.8	276.7	
REC # 13,					INCLIN = 130	T(V)	T(H)	HOT LD.	ANT.	
MON = 2					5 GHZ	-7.7	-3.0	300.2	285.1	130 DEG UP LOOKING
DAY = 15					10 GHZ	8.2	7.6	310.6	285.1	CLOUD SPOT - THICK SNOW CLOUD
HR = 15					18 GHZ	21.7	27.2	297.4	314.7	C BAND WITH 20 MIL PLASTIC COVER
MIN = 44					37 GHZ	17.3	29.8	303.0	276.6	
REC # 14,					INCLIN = 80	T(V)	T(H)	HOT LD.	ANT.	
MON = 2					5 GHZ	213.8	173.9	300.3	284.8	INC=1.53V SCAN
DAY = 15					10 GHZ	225.6	187.2	310.7	284.8	TIME APPROXIMATED
HR = 15					18 GHZ	212.2	197.0	297.5	313.7	
MIN = 46					37 GHZ	168.3	144.0	303.9	276.6	
REC # 15,					INCLIN = 70	T(V)	T(H)	HOT LD.	ANT.	
MON = 2					5 GHZ	251.3	207.3	300.2	282.4	INC=+1.16V SCAN
DAY = 15					10 GHZ	251.0	204.2	310.7	282.4	
HR = 15					18 GHZ	259.5	205.9	297.4	305.6	
MIN = 52					37 GHZ	205.0	185.4	304.0	276.3	
REC # 16,					INCLIN = 60	T(V)	T(H)	HOT LD.	ANT.	
MON = 2					5 GHZ	261.1	225.4	300.1	280.9	INC=+.86V SCAN
DAY = 15					10 GHZ	258.5	229.6	310.7	280.9	
HR = 15					18 GHZ	264.2	210.8	297.2	297.5	
MIN = 57					37 GHZ	215.6	200.1	303.9	276.1	
REC # 17,					INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 2					5 GHZ	261.8	237.3	300.1	280.1	INC=.49V SCAN
DAY = 15					10 GHZ	260.2	237.4	310.7	280.1	
HR = 16					18 GHZ	266.0	250.4	297.0	292.9	
MIN = 0					37 GHZ	219.6	204.0	303.8	275.7	
REC # 18,					INCLIN = 45	T(V)	T(H)	HOT LD.	ANT.	
MON = 2					5 GHZ	258.8	242.5	300.1	279.6	INC=.19V SCAN
DAY = 15					10 GHZ	259.9	244.7	310.7	279.6	
HR = 16					18 GHZ	266.9	258.5	296.9	291.4	
MIN = 2					37 GHZ	217.3	208.7	303.6	275.4	
REC # 19,					INCLIN = 45	T(V)	T(H)	HOT LD.	ANT.	
MON = 2					5 GHZ	260.7	245.8	300.0	278.6	SMOOTH (COMPARISON TO ROUGH SNOW)
DAY = 15					10 GHZ	258.1	243.4	310.7	278.6	INC=.19V
HR = 16					18 GHZ	268.2	257.1	296.6	287.9	TIME APPROXIMATED
MIN = 7					37 GHZ	216.6	207.2	303.3	275.2	
REC # 20,					INCLIN = 45	T(V)	T(H)	HOT LD.	ANT.	
MON = 2					5 GHZ	260.7	243.2	299.9	277.8	ROUGH UP TOP 5 CH. SURFACE
DAY = 15					10 GHZ	257.7	243.4	310.7	277.8	
HR = 16					18 GHZ	265.4	259.6	296.3	284.6	
MIN = 12					37 GHZ	214.3	207.4	302.8	274.9	

1978 SMHR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 2/15/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
21	2	15	16	18	45	256.4	243.7	299.6	277.4	COMPACT SURFACE 10 IN. OF SNOW ROUGH APPROXIMATED TIME
					5 GHZ	255.9	247.0	310.7	277.4	
					10 GHZ	264.2	258.5	295.3	281.2	
					37 GHZ	214.8	212.0	300.9	274.6	
22	2	15	16	23	45	261.0	252.2	299.5	276.8	BOOM OUT - SNOW DEPTH REDUCED INC=.20V
					5 GHZ	260.3	247.4	310.7	276.8	
					10 GHZ	266.3	256.3	295.0	279.4	
					37 GHZ	201.8	188.8	300.5	273.6	
23	2	15	16	27	50	259.7	234.4	299.4	277.8	INC=.52V SCAN
					5 GHZ	259.6	241.8	310.7	277.8	
					10 GHZ	266.3	252.3	294.8	284.8	
					37 GHZ	205.3	186.9	300.2	273.4	
24	2	15	16	33	60	254.5	215.7	299.4	279.3	INC=.85V SCAN
					5 GHZ	254.2	225.1	310.7	279.3	
					10 GHZ	262.6	211.3	294.7	295.9	
					37 GHZ	203.7	188.0	300.0	272.8	
25	2	15	16	37	70	245.1	192.7	299.4	279.9	INC=1.50V SCAN
					5 GHZ	252.1	224.4	310.7	279.9	
					10 GHZ	261.4	212.1	294.6	300.4	
					37 GHZ	195.1	169.3	299.9	272.4	
26	2	15	16	45	80	251.5	156.6	299.4	280.2	INC=1.55V
					5 GHZ	229.7	198.6	310.7	280.2	
					10 GHZ	214.6	200.9	298.8	303.0	
					37 GHZ	174.5	145.1	300.1	272.3	

END OF RUN.

1978 SMNR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 2/16/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
1, 2					135					
	16	10	18	35	5 GHZ	2.6	5.4	297.3	268.7	45 DEGREE UP. AIR TEMP = -10C
					10 GHZ	2.9	4.5	311.1	268.7	SKY CAL
					18 GHZ	10.0	10.0	290.9	275.4	INC=2.58V
					37 GHZ	9.6	24.6	302.2	270.8	
2, 2					80					
	16	10	18	42	5 GHZ	210.3	169.9	298.0	268.7	SCAN 80 DEGREE
					10 GHZ	187.8	147.5	311.1	268.7	SNOW ABOUT 30 INCHES
					18 GHZ	217.2	190.2	292.1	275.4	INC=1.54V
					37 GHZ	148.0	104.7	303.0	271.2	
3, 2					70					
	16	10	18	46	5 GHZ	255.3	216.1	297.2	269.3	SCAN 70 DEGREE
					10 GHZ	243.6	209.1	311.1	269.3	SWATH
					18 GHZ	249.7	221.0	292.6	275.8	INC=1.15V
					37 GHZ	190.0	162.8	302.0	271.7	
4, 2					60					
	16	10	18	49	5 GHZ	265.6	235.8	297.2	269.9	SCAN 60 DEGREE
					10 GHZ	253.1	220.7	311.1	269.9	SWATH
					18 GHZ	262.0	238.7	293.0	276.2	INC=.85V
					37 GHZ	206.5	189.1	302.1	272.2	
5, 2					50					
	16	10	18	51	5 GHZ	268.4	241.0	297.3	270.0	SCAN 50 DEGREE
					10 GHZ	257.0	237.3	311.1	270.0	SWATH
					18 GHZ	261.6	250.2	293.3	276.4	INC=.50V
					37 GHZ	211.8	197.1	302.2	272.4	
6, 2					45					
	16	10	18	54	5 GHZ	267.2	251.1	297.4	270.8	SCAN 45 DEGREE
					10 GHZ	256.4	235.0	311.2	270.8	SWATH
					18 GHZ	263.1	271.8	293.7	277.1	INC=.216V
					37 GHZ	212.3	199.1	302.4	273.3	
7, 2					50					
	16	10	18	15	5 GHZ	264.9	247.2	300.0	273.8	SCAN 50 DEGREE
					10 GHZ	259.1	229.9	311.6	273.8	FIX ANGLE
					18 GHZ	266.3	253.0	295.7	279.6	INC=.49V
					37 GHZ	212.4	200.5	306.3	276.5	
8, 2					50					
	16	10	18	6	5 GHZ	267.1	249.1	303.2	276.7	SCAN 50 DEGREE
					10 GHZ	259.5	230.3	311.3	276.7	FIX ANGLE SNOW DEPTH=30 INCHES
					18 GHZ	263.5	255.5	298.9	282.9	30 FT RADIUS
					37 GHZ	213.9	206.2	312.5	280.3	OVER SNOWSHOE TRACK
9, 2					50					
	16	10	18	10	5 GHZ	270.1	250.6	303.3	277.0	SCAN 50 DEGREE,
					10 GHZ	260.0	238.3	311.3	277.0	FIX ANGLE
					18 GHZ	264.2	254.4	299.1	283.2	
					37 GHZ	210.2	196.0	312.6	280.7	
10, 2					90					
	16	10	18	30	5 GHZ	273.3	272.8	301.3	274.5	AMBIENT CAL -2C,
					10 GHZ	267.6	267.7	311.7	274.5	AIR TEMP -8.8C
					18 GHZ	270.0	270.0	297.0	280.1	C BAND WITH 30 Ml PLASTIC COVER
					37 GHZ	266.2	266.6	308.4	277.2	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
11					50					
					5 GHZ	270.9	250.5	303.4	277.2	
					10 GHZ	259.7	238.2	311.3	277.2	SCAN 50 DEGREE,
					18 GHZ	266.0	255.2	299.3	283.8	FIX ANGLE
					37 GHZ	209.3	198.2	312.6	281.2	
12					50					
					5 GHZ	270.4	250.0	303.4	277.6	
					10 GHZ	258.8	240.9	311.3	277.6	SCAN 50 DEGREE,
					18 GHZ	262.6	252.2	299.5	284.2	FIX ANGLE
					37 GHZ	207.3	196.2	312.5	281.8	
13					50					
					5 GHZ	269.0	249.9	303.4	277.8	
					10 GHZ	259.1	238.0	311.2	277.8	
					18 GHZ	262.9	250.9	299.6	284.4	
					37 GHZ	207.2	199.6	312.4	282.1	
14					50					
					5 GHZ	267.8	249.1	303.4	277.9	
					10 GHZ	256.5	239.5	311.2	277.9	
					18 GHZ	263.9	252.5	299.7	284.4	
					37 GHZ	207.4	198.2	312.3	282.4	
15					50					
					5 GHZ	265.9	243.0	303.3	278.2	
					10 GHZ	257.4	232.3	311.2	278.2	
					18 GHZ	262.0	249.2	299.8	284.7	
					37 GHZ	209.7	200.3	312.2	282.7	
16					50					
					5 GHZ	269.0	247.4	303.3	278.4	
					10 GHZ	258.1	237.3	311.2	278.4	
					18 GHZ	261.7	250.6	299.9	285.0	
					37 GHZ	211.8	200.6	312.0	283.0	
17					50					
					5 GHZ	268.8	244.8	303.3	278.5	
					10 GHZ	258.2	237.9	311.2	278.5	
					18 GHZ	263.2	250.3	299.9	285.2	
					37 GHZ	216.8	202.8	311.9	283.1	
18					50					
					5 GHZ	270.0	247.6	302.9	278.7	
					10 GHZ	261.2	238.7	311.2	278.7	
					18 GHZ	265.1	250.3	300.0	285.4	
					37 GHZ	215.1	206.2	310.9	283.2	
19					50					
					5 GHZ	257.2	231.3	302.7	279.5	
					10 GHZ	253.2	235.5	311.2	279.5	LEFT SIDE OF TRUCK
					18 GHZ	261.7	245.7	300.3	286.0	SNOW ABOUT 29 INCHES
					37 GHZ	212.7	202.0	310.1	282.4	INC=.48V
20					50					
					5 GHZ	261.1	234.9	302.6	280.1	
					10 GHZ	246.8	217.3	311.1	280.1	INC=.48V
					18 GHZ	263.2	249.5	300.4	285.6	
					37 GHZ	212.5	202.1	309.7	282.6	

1978 SMHR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 2/16/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
21	2	16	12	55	80	212.5	169.8	302.5	280.2	INC=1.53V
					5 GHZ	196.5	154.3	311.1	280.2	
					10 GHZ	202.6	188.8	300.5	285.5	
					18 GHZ	156.4	124.4	309.5	282.7	
22	2	16	13	0	70	252.4	210.1	302.5	280.0	INC=1.17V
					5 GHZ	244.3	204.9	311.1	280.0	
					10 GHZ	254.8	200.1	300.6	285.7	
					18 GHZ	188.6	157.6	309.3	282.6	
23	2	16	13	2	60	266.9	241.7	302.5	280.1	INC=.85V
					5 GHZ	257.1	235.5	311.1	280.1	
					10 GHZ	261.3	249.5	300.6	285.7	
					18 GHZ	212.0	199.3	309.2	282.6	
24	2	16	13	5	50	266.8	241.8	302.4	280.2	INC=.49V
					5 GHZ	258.4	236.8	311.1	280.2	
					10 GHZ	262.3	250.3	300.7	285.9	
					18 GHZ	215.5	202.7	309.1	282.7	
25	2	16	13	18	40	263.7	248.9	302.3	280.2	INC=.15V
					5 GHZ	255.8	238.1	311.1	280.2	
					10 GHZ	262.9	252.5	300.8	285.7	
					18 GHZ	212.6	202.0	308.8	282.9	
26	2	16	13	20	30	259.1	250.7	302.3	280.2	INC=-.24V
					5 GHZ	258.1	251.3	311.1	280.2	
					10 GHZ	262.3	256.0	300.8	285.7	
					18 GHZ	210.3	206.8	308.7	283.0	
27	2	16	13	30	30	254.9	245.5	302.3	280.6	10 FEET ABOVE SNOW
					5 GHZ	259.7	253.0	311.1	280.6	INC=-.23V
					10 GHZ	262.7	256.3	300.9	286.1	
					18 GHZ	211.5	206.4	308.7	283.4	
28	2	16	13	35	30	254.6	245.7	302.6	280.8	INC=-.22V
					5 GHZ	259.8	254.0	311.1	280.8	4 FEET ABOVE SNOW
					10 GHZ	263.9	255.8	300.4	286.2	
					18 GHZ	212.8	206.4	309.7	283.6	
29	2	16	14	5	50	262.5	240.2	302.6	281.4	SNOW PILE EXPERIMENT
					5 GHZ	258.2	236.2	311.1	281.4	10 FT DIAMETER PIT
					10 GHZ	263.9	250.9	300.4	286.5	SNOW 28 INCHES
					18 GHZ	209.3	197.0	309.7	283.5	INC=-.50V
30	2	16	14	20	50	255.8	229.3	302.6	281.4	SNOW 23 INCHES
					5 GHZ	258.2	235.7	311.1	281.4	
					10 GHZ	263.3	250.4	300.8	286.5	
					18 GHZ	208.8	198.6	309.7	283.5	

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REC # 31,	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	252.9	230.6	302.6	281.4	SNOW 20 INCHES
DAY = 16	10 GHZ	257.3	235.7	311.1	281.4	
HR = 14	18 GHZ	261.7	251.5	300.4	286.5	
MIN = 30	37 GHZ	204.3	196.6	309.7	283.5	
REC # 32,	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	246.5	222.8	302.6	281.4	SNOW 14 INCHES
DAY = 16	10 GHZ	257.3	234.0	311.1	281.4	LN2 GONE FOR 5 GHZ
HR = 14	18 GHZ	262.6	252.3	300.4	286.5	TIME APPROXIMATED
MIN = 40	37 GHZ	195.8	191.1	309.7	283.5	
REC # 33,	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	242.2	214.6	302.6	281.4	SNOW 9 INCHES
DAY = 16	10 GHZ	258.2	236.6	311.1	281.4	TIME APPROXIMATED
HR = 14	18 GHZ	263.0	254.2	300.4	286.5	
MIN = 50	37 GHZ	205.5	202.5	309.7	283.5	
REC # 34,	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	234.8	216.5	302.6	281.4	TIME APPROXIMATED
DAY = 16	10 GHZ	259.4	251.3	311.1	281.4	TRACE OF SNOW WITH 1/2 INCH ICE
HR = 15	18 GHZ	181.6	184.2	300.4	286.5	LAYER.
MIN = 0	37 GHZ	248.4	246.7	309.7	283.5	AIR TEMP ABOUT -10C

END OF RUN.

1978 SHMR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 2/22/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	NOTES
1	2	22	11	21	30	266.2	256.7	302.5	287.2	REC NO. (1-6) WIND DRIFT PACK BEHIND TRUCK NO AL PLATE YET. GOT TIME FROM XEROX NOTES - FILE 1
					5 GHZ	259.1	258.7	311.1	285.1	
					10 GHZ	260.5	258.3	301.1	287.7	
					37 GHZ	247.2	244.9	306.2	284.9	
2	2	22	11	55	30	100.3	60.2	303.7	289.9	REC NO. (8-11) AL PLATE INSERTED. 58-61 CM SNOW TIME FROM NOTES - FILE 8
					5 GHZ	57.5	59.5	311.1	287.1	
					10 GHZ	97.1	93.6	303.0	290.7	
					37 GHZ	110.2	125.9	308.2	287.2	
3	2	22	12	20	135	-1.6	-1.2	304.2	291.1	REC NO. (12-14) SKY CAL. CLEAR SKY. TEMP=-2C. INC=2.605 VOLT TIME FROM NOTES - FILE 12
					5 GHZ	-0.1	1.8	311.2	288.2	
					10 GHZ	7.7	9.7	303.9	291.8	
					37 GHZ	13.6	45.1	308.9	287.8	
4	2	22	12	55	30	71.5	77.7	304.5	292.0	REC NO. (16-19) SNOW ON AL PLATE INC=-.22 VOLT PILE UP WITH WIND DRIFT TIME FROM NOTES - FILE 16
					5 GHZ	143.0	144.4	311.1	289.2	
					10 GHZ	141.7	143.9	304.3	291.5	
					37 GHZ	167.4	177.0	309.1	287.1	
5	2	22	13	10	30	266.9	257.0	304.6	291.8	REC NO. (20-23) NORTH SIDE OF PATH. NO AL PLATE SIDE OF TRUCK. (NATURAL) PORT SIDE OF TRUCK. (BETWEEN 2 PILES) INC=-.22V, TIME FROM FILE 20 NOTES
					5 GHZ	254.0	242.7	311.1	289.3	
					10 GHZ	258.3	255.8	304.0	290.9	
					37 GHZ	203.9	200.9	308.7	286.5	
6	2	22	13	24	40	262.8	242.1	304.5	291.2	REGULAR NATURAL PACK (FILE 24) INC=.15 VOLT TIME FROM NOTES
					5 GHZ	256.3	236.3	311.1	289.0	
					10 GHZ	263.7	256.3	303.5	290.2	
					37 GHZ	213.3	208.5	308.1	285.7	
7	2	22	13	36	30	67.0	80.2	304.3	289.3	REC NO. 25 53 CM SNOW ON AL PLATE INC=.2 VOLT, CENTER ON 5 GHZ
					5 GHZ	127.6	170.1	311.1	288.1	
					10 GHZ	170.8	141.3	301.8	288.2	
					37 GHZ	187.4	194.5	306.1	283.9	
8	2	22	13	50	30	174.4	116.6	304.2	288.4	REC NO. 26 53 CM MOVE PACK - CENTERED ON 5 GHZ
					5 GHZ	143.9	165.5	311.1	287.6	
					10 GHZ	130.3	136.6	301.0	287.2	
					37 GHZ	174.3	182.2	305.4	283.0	
9	2	22	13	57	30	0.0	0.0	304.2	288.1	REC NO. 27 53 CM 37 GHZ ONLY TIME APPROXIMATED FENCE ON 5, 10, 18 MISSING
					0 GHZ	0.0	0.0	311.1	287.4	
					0 GHZ	0.0	0.0	300.7	286.9	
					37 GHZ	194.4	196.3	305.2	282.7	
10	2	22	14	5	30	79.8	92.5	304.2	287.8	REC NO. (28-31) 63 CM SNOW. FENCE AROUND AREA
					5 GHZ	179.8	210.3	311.1	287.1	
					10 GHZ	184.3	184.1	300.4	286.5	
					37 GHZ	195.4	198.6	305.0	282.4	

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REC # 11,	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	85.0	84.1	304.1	287.2	REC NO. (32-35)
DAY = 22	10 GHZ	123.7	162.7	311.1	286.6	95 CM SNOW ON PLATE
HR = 14	18 GHZ	204.5	202.7	300.0	286.0	
MIN = 26	37 GHZ	208.1	210.0	304.9	282.1	
REC # 12,	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	42.1	34.6	304.2	287.3	REC NO. (36-39)
DAY = 22	10 GHZ	265.6	277.1	311.1	285.8	115.6 CM SNOW ON PLATE
HR = 14	18 GHZ	196.2	196.2	300.4	286.5	LOW LN2 SHOWED IN 5 GHZ DATA
MIN = 58	37 GHZ	198.8	199.4	306.6	283.3	
REC # 13,	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	23.1	25.8	304.2	287.3	REC NO. (40-43)
DAY = 22	10 GHZ	230.3	237.1	311.1	285.7	134.6 CM SNOW ON PLATE
HR = 15	18 GHZ	194.4	193.9	300.4	286.5	
MIN = 25	37 GHZ	179.6	177.0	306.6	283.3	
REC # 14,	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	-28.4	-29.8	304.2	287.3	REC NO. (44-47)
DAY = 22	10 GHZ	160.9	158.0	311.1	285.7	146 CM SNOW ON METAL PLATE
HR = 15	18 GHZ	189.3	188.6	300.4	286.5	
MIN = 35	37 GHZ	180.1	181.4	306.6	283.3	

END OF RUN.

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	NOTES
1	2	23	11	55	20	0.0	0.0	301.9	280.5	REC (1-4) SNOW DEPTH=53.5 INCHES SNOW FENCE REMOVED. AL PLATE INSERTED. SNOW SCRAPED OFF. INC=-.49V
					0 GHZ	177.9	173.4	311.4	278.0	
					18 GHZ	193.2	188.7	300.3	283.8	
					37 GHZ	212.1	209.7	307.6	282.1	
2	2	23	12	9	15	0.0	0.0	302.9	282.9	REC (5-8) 50.5 INCHES SNOW INC=-.7 VOLT TIME FROM NOTES
					0 GHZ	148.6	146.4	311.1	280.0	
					18 GHZ	186.2	188.2	302.4	286.5	
					37 GHZ	213.0	211.4	309.8	284.5	
3	2	23	12	17	15	0.0	0.0	303.3	284.1	REC (9-12) 48 INCHES SNOW 9 FEET FROM SNOW INC=-.7 VOLT TIME FROM NOTES
					0 GHZ	144.1	142.8	310.9	281.1	
					18 GHZ	182.5	184.9	303.5	287.8	
					37 GHZ	212.0	211.7	310.7	285.7	
4	2	23	12	30	15	0.0	0.0	304.0	285.9	REC (13-16) 44 INCHES SNOW INC=-.71 V
					0 GHZ	144.4	143.6	310.8	282.7	
					18 GHZ	181.1	182.0	304.8	289.7	
					37 GHZ	211.6	212.8	311.7	287.4	
5	2	23	12	39	15	0.0	0.0	304.2	286.7	REC (17-20) 41.5 INCHES SNOW INC=-.71 V
					5 GHZ	103.8	116.7	311.1	283.7	
					10 GHZ	139.1	140.0	305.1	290.5	
					18 GHZ	178.8	181.5	310.5	288.2	
					37 GHZ	214.5	214.5			
6	2	23	12	50	15	0.0	0.0	304.6	288.0	REC (21-24) 36 INCHES SNOW INC=-.70 V
					5 GHZ	103.1	114.1	311.1	284.9	
					10 GHZ	140.5	140.5	305.9	291.8	
					18 GHZ	178.8	179.3	310.9	289.4	
					37 GHZ	209.9	213.6			
7	2	23	13	2	15	0.0	0.0	305.0	289.3	REC (25-28) 33 INCHES SNOW INC=-.70 V
					5 GHZ	98.7	114.9	311.2	286.1	
					10 GHZ	131.7	134.3	306.8	293.1	
					18 GHZ	179.7	180.8	311.2	290.6	
					37 GHZ	208.2	211.0			
8	2	23	13	10	15	0.0	0.0	305.3	290.1	REC (29-32) 27 INCHES SNOW INC=-.70 V
					5 GHZ	94.7	105.7	311.2	286.9	
					10 GHZ	120.6	122.2	307.2	293.8	
					18 GHZ	136.0	141.6	311.4	291.4	
					37 GHZ	199.1	202.8			
9	2	23	13	19	15	0.0	0.0	305.5	290.9	REC (33-36) 19 INCHES SNOW INC=-.7 V
					5 GHZ	86.4	98.0	311.2	287.6	
					10 GHZ	103.1	105.8	307.7	294.6	
					18 GHZ	149.1	147.6	311.6	292.1	
					37 GHZ	184.4	188.1			
10	2	23	13	30	15	0.0	0.0	305.8	291.9	REC (37-40) 12 INCHES SNOW AL PLATE ON BOTTOM INC=-.7 V
					5 GHZ	82.7	94.3	311.3	288.5	
					10 GHZ	96.0	98.6	308.2	295.5	
					18 GHZ	135.6	113.8	311.9	293.0	
					37 GHZ	150.6	154.4			

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
11,	2				0					
	2	23	13	40	5 GHZ	258.0	256.9	306.0	292.7	REC(41) 33 INCHES SNOW
					10 GHZ	259.1	262.2	311.3	289.2	SWATH SCAN, INC=-1.2 V
					18 GHZ	230.0	231.8	308.6	296.1	NATURAL PACK. ON NORTH SIDE
					37 GHZ	209.2	210.0	312.1	293.7	LOOKING NORTH. BOOM FULLY EXT.D.
12,	2				10					
	2	23	13	42	5 GHZ	260.4	257.8	306.3	293.3	REC(42) SWATH SCAN
					10 GHZ	256.3	257.0	311.6	289.7	SCAN
					18 GHZ	233.7	237.0	308.2	296.3	
					37 GHZ	203.9	207.6	312.6	294.0	
13,	2				20					
	2	23	13	44	5 GHZ	260.0	253.6	306.3	293.4	REC(43) SCAN
					10 GHZ	256.1	251.7	311.7	289.8	INC=-.51 V
					18 GHZ	234.0	231.0	308.2	296.4	
					37 GHZ	206.1	204.4	312.7	294.1	
14,	2				30					
	2	23	13	46	5 GHZ	263.4	251.9	306.3	293.6	REC(44) SCAN
					10 GHZ	256.6	243.7	311.7	289.9	INC=-.22 V
					18 GHZ	232.2	225.7	308.3	296.5	
					37 GHZ	206.9	200.1	312.7	294.2	
15,	2				40					
	2	23	13	52	5 GHZ	267.3	248.9	306.4	294.0	REC(45) SCAN
					10 GHZ	256.2	238.4	311.7	290.3	INC= .15 V
					18 GHZ	232.2	225.0	308.5	296.8	
					37 GHZ	213.2	203.5	312.8	294.6	
16,	2				15					
	2	23	13	54	5 GHZ	45.2	51.7	306.5	294.1	REC(46-49)
					10 GHZ	54.3	56.8	311.7	290.4	AL PLATE SKY CAL
					18 GHZ	88.8	90.1	308.5	296.9	INC=-.70 V
					37 GHZ	63.4	75.9	312.8	294.7	
17,	2				50					
	2	23	14	4	5 GHZ	269.0	242.2	306.6	294.7	REC(50) LOOKING NORTH SCAN (CONTI)
					10 GHZ	258.5	227.4	311.7	290.8	
					18 GHZ	230.2	220.3	308.8	297.2	
					37 GHZ	212.8	194.3	312.8	295.1	
18,	2				60					
	2	23	14	6	5 GHZ	264.9	222.5	306.6	294.8	REC(51) SCAN
					10 GHZ	255.3	216.6	311.7	290.8	INC= .85 V
					18 GHZ	229.1	212.1	308.9	297.3	
					37 GHZ	206.3	178.5	312.8	295.2	
19,	2				70					
	2	23	14	8	5 GHZ	251.9	198.9	306.6	294.9	REC(52) SCAN
					10 GHZ	241.4	192.3	311.7	290.9	INC=1.15 V
					18 GHZ	215.7	205.6	308.9	297.4	
					37 GHZ	198.0	172.6	312.8	295.3	
20,	2				80					
	2	23	14	10	5 GHZ	210.7	162.5	306.6	294.9	REC(53) SCAN
					10 GHZ	200.1	152.3	311.7	290.9	INC=1.52 V
					18 GHZ	174.8	161.2	309.0	297.4	
					37 GHZ	176.5	151.4	312.7	295.3	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
21	2	23	14	12	130	3.3	5.3	306.6	295.0	REC(54) SKY CAL
					5 GHZ	1.4	4.0	311.7	291.0	INC=2.74 V AIR TEMP 1C
					10 GHZ	30.0	36.2	309.1	297.5	
					18 GHZ	17.6	30.9	312.7	295.4	
22	2	23	14	25	75	246.9	196.1	306.6	295.4	REC(55) SPOT SCAN SERIES
					5 GHZ	240.1	177.0	311.6	291.2	15 TO 20 FT ABOVE GROUND. LOOKING N
					10 GHZ	223.3	178.0	309.4	297.7	BOOM FULLY EXTD. NATURAL PACK
					18 GHZ	205.4	173.4	312.5	295.7	29 INCHES SNOW. INC=1.26 V
23	2	23	14	27	70	254.5	203.6	306.6	295.5	REC(56) SPOT
					5 GHZ	246.7	192.7	311.6	291.2	INC=1.15 V
					10 GHZ	222.9	205.8	309.5	297.7	
					18 GHZ	209.2	176.1	312.5	295.7	
24	2	23	14	35	60	264.4	226.1	306.6	295.6	REC(57) SPOT
					5 GHZ	258.4	221.2	311.5	291.2	INC=-.85 V
					10 GHZ	230.3	217.8	309.7	297.7	
					18 GHZ	217.3	186.1	312.2	295.8	
25	2	23	14	39	50	266.5	236.3	306.5	295.7	REC(58) SPOT
					5 GHZ	260.6	226.6	311.5	291.2	INC=-.5 V
					10 GHZ	228.5	218.1	309.8	297.7	
					18 GHZ	221.3	200.7	312.1	295.8	
26	2	23	14	44	40	264.0	244.2	306.3	295.6	REC(59) SPOT
					5 GHZ	259.6	243.5	311.3	290.9	INC=-.15 V
					10 GHZ	231.1	219.9	310.0	297.5	
					18 GHZ	220.4	208.5	311.6	295.7	
27	2	23	14	48	30	261.6	249.7	306.3	295.6	REC(60) SPOT
					5 GHZ	252.0	238.6	311.2	290.8	INC=-.22 V
					10 GHZ	229.9	226.1	310.0	297.5	
					18 GHZ	217.7	212.3	311.5	295.7	
28	2	23	14	52	20	258.0	251.1	306.2	295.6	REC(61) SPOT
					5 GHZ	252.6	247.7	311.2	290.8	INC=-.55 V
					10 GHZ	230.2	227.6	310.1	297.4	
					18 GHZ	214.3	213.9	311.3	295.6	
29	2	23	14	56	10	256.4	252.7	306.2	295.6	REC(62) SPOT
					5 GHZ	249.7	248.9	311.2	290.7	INC=-.84 V
					10 GHZ	229.1	229.7	310.2	297.4	
					18 GHZ	211.9	213.5	311.2	295.6	
30	2	23	15		0	255.7	253.5	306.2	295.6	REC(63) SPOT
					5 GHZ	250.7	251.3	311.1	290.7	
					10 GHZ	230.5	233.3	310.2	297.3	
					18 GHZ	205.4	209.6	311.1	295.6	

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REC # 31,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	255.6	246.8	306.2	295.6	REC(64) 34 INCHES SNOW
DAY = 23	10 GHZ	251.6	247.6	311.1	290.6	UNDISTURBED SURFACE
HR = 15	18 GHZ	231.9	230.2	310.2	297.2	
MIN = 4	37 GHZ	215.3	215.8	311.1	295.6	
REC # 32,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	256.7	250.9	306.2	295.4	REC(65-68) 32 INCHES SNOW
DAY = 23	10 GHZ	259.5	257.4	311.1	290.4	REMOVE TOP 2 INCHES SURFACE TO
HR = 15	18 GHZ	231.4	230.4	310.3	297.0	DEPTH HOAR SNOW
MIN = 15	37 GHZ	205.8	206.8	310.9	295.4	
REC # 33,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	251.2	244.6	306.2	295.2	REC(69-72) PILE UP WITH DEPTH
DAY = 23	10 GHZ	252.0	248.9	311.2	290.1	HOAR TO 40.5 INCHES
HR = 15	18 GHZ	227.7	229.5	310.3	296.6	
MIN = 29	37 GHZ	200.4	202.6	310.8	295.2	
REC # 34,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	252.8	247.6	306.6	294.4	REC(73-76) SAME 40.5 INCHES
DAY = 23	10 GHZ	255.7	253.1	311.6	289.5	SNOW FENCE WITH PLASTIC
HR = 15	18 GHZ	230.8	231.0	309.8	295.6	
MIN = 40	37 GHZ	215.0	215.9	311.1	294.6	
REC # 35,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	249.7	243.9	306.6	294.2	REC(77-80) 48 INCHES DEPTH HOAR
DAY = 23	10 GHZ	253.6	250.5	311.6	289.3	
HR = 15	18 GHZ	228.7	226.7	309.7	295.3	
MIN = 56	37 GHZ	214.1	214.9	311.1	294.5	
REC # 36,	INCLIN = 15	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	242.6	237.4	306.6	294.2	REC(81-84) 59 INCHES SNOW
DAY = 23	10 GHZ	252.3	249.3	311.6	289.3	INC=-.56V
HR = 16	18 GHZ	231.4	231.5	309.7	295.3	
MIN = 10	37 GHZ	207.5	205.4	311.1	294.5	
REC # 37,	INCLIN = 15	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	235.7	228.5	306.6	294.2	REC(85) 70 INCHES SNOW (DEPTH HOAR)
DAY = 23	10 GHZ	249.8	246.7	311.6	289.3	INC=-.56 V
HR = 16	18 GHZ	229.9	229.7	309.7	295.3	
MIN = 24	37 GHZ	196.4	196.9	311.1	294.5	

END OF RUN.

1978 SMNR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 2/24/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	NOTES
REC # 1,					INCLIN = 130	T(V)	T(H)	HOT LD.	ANT.	
	MON = 2				0 GHZ	0.0	0.0	287.8	281.7	
	DAY = 24				10 GHZ	4.2	6.2	307.7	263.2	5 GHZ NOT WARMED UP YET
	HR = 10				18 GHZ	13.8	13.6	279.4	264.6	SKY CAL INC=2.67V
	MIN = 10				37 GHZ	12.1	23.3	293.5	267.0	
REC # 2,					INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
	MON = 2				0 GHZ	0.0	0.0	279.8	285.8	
	DAY = 24				10 GHZ	259.2	248.6	309.5	267.4	SNOW 23.5 INCHES
	HR = 10				18 GHZ	271.2	264.1	285.8	270.6	INC=.166V
	MIN = 30				37 GHZ	212.8	200.8	297.8	270.2	
REC # 3,					INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
	MON = 2				0 GHZ	0.0	0.0	276.7	287.4	
	DAY = 24				10 GHZ	260.9	249.3	310.1	269.0	SNOW DEPTH VARIES 13 TO 22 INCHES
	HR = 10				18 GHZ	272.2	264.9	288.3	272.9	INC=.162 VOLT
	MIN = 40				37 GHZ	224.9	216.6	299.4	271.5	
REC # 4,					INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
	MON = 2				0 GHZ	0.0	0.0	275.4	288.1	
	DAY = 24				10 GHZ	259.8	247.3	310.4	269.7	DATA FOR 10 & 37 GHZ ONLY
	HR = 10				0 GHZ	0.0	0.0	289.3	273.9	INC=.15V
	MIN = 45				37 GHZ	221.0	212.9	300.1	272.0	13 TO 16 INCHES SNOW
REC # 5,					INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
	MON = 2				5 GHZ	250.9	236.5	274.2	288.7	
	DAY = 24				10 GHZ	260.0	247.5	310.7	270.4	SNOW 18 INCHES
	HR = 10				18 GHZ	268.6	261.8	290.3	274.8	SPOT INC=.15V
	MIN = 50				37 GHZ	213.7	203.2	300.8	272.5	10 GHZ DATA READ AT 1046
REC # 6,					INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
	MON = 2				5 GHZ	245.9	239.8	272.2	289.7	
	DAY = 24				10 GHZ	260.5	260.5	311.1	271.4	SNOW 20 INCHES
	HR = 11				18 GHZ	269.0	266.4	291.9	276.3	SPOT INC=-1.25V
	MIN = 0				37 GHZ	215.9	213.4	301.9	273.3	
REC # 7,					INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
	MON = 2				5 GHZ	246.4	229.4	271.5	290.1	
	DAY = 24				10 GHZ	260.3	251.9	311.3	271.8	SNOW 20 INCHES
	HR = 11				18 GHZ	268.3	259.0	292.4	276.7	SPOT INC=.16V
	MIN = 4				37 GHZ	215.9	208.0	302.2	273.6	
REC # 8,					INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
	MON = 2				5 GHZ	45.4	40.1	270.5	290.6	
	DAY = 24				10 GHZ	25.3	28.5	311.5	272.3	SLIDE AL PLATE UNDER 20 INCHES
	HR = 11				18 GHZ	73.6	44.1	293.2	277.5	UNDISTURBED SNOW
	MIN = 12				37 GHZ	87.1	93.1	302.7	274.0	NORTH SIDE, DENSITY .23
REC # 9,					INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
	MON = 2				5 GHZ	216.0	211.6	269.9	290.9	
	DAY = 24				10 GHZ	236.4	235.6	311.7	272.6	NATURAL SNOW NEXT TO PLATE
	HR = 11				18 GHZ	261.5	259.8	293.7	277.9	37 INCHES SNOW
	MIN = 20				37 GHZ	221.1	220.2	303.1	274.2	INC=-1.27V
REC # 10,					INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
	MON = 2				5 GHZ	207.5	291.2	269.7	291.0	
	DAY = 24				10 GHZ	231.0	337.6	311.7	272.8	37 INCHES NATURAL SNOW
	HR = 11				18 GHZ	261.5	344.7	293.9	278.1	INC=.14V
	MIN = 26				37 GHZ	224.3	352.6	303.2	274.3	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
11	2	24	11	35	= 20	31.6	30.7	272.2	289.7	PLATE ON SURFACE
					5 GHZ	18.4	21.9	311.1	271.4	NO SNOW ON TOP
					10 GHZ	72.9	75.4	291.9	276.3	INC=-.55V
					18 GHZ	34.7	44.7	301.9	273.3	
					37 GHZ					
12	2	24	11	37	= 20	45.2	45.5	272.2	289.7	TOP AL REMOVED
					5 GHZ	27.8	31.5	311.1	271.4	COMPRESS 20 TO 16 INCHES SNOW
					10 GHZ	77.7	81.7	291.9	276.3	INC=-.55V
					18 GHZ	77.9	86.0	301.9	273.3	
					37 GHZ					
13	2	24	11	41	= 15	202.4	293.2	272.2	289.7	UNDESTRUCTED SNOW NEXT
					5 GHZ	226.7	337.0	311.1	271.4	TO THE AL PLATE
					10 GHZ	237.5	340.8	291.9	276.3	INC=-.56V
					18 GHZ	211.8	352.7	301.9	273.3	APPROXIMATED TIME
					37 GHZ					
14	2	24	11	50	= 15	207.0	193.8	272.2	289.7	PLATE REMOVED FROM BOTTOM
					5 GHZ	230.7	223.6	311.1	271.4	OF PACKED SNOW DENSITY=.31
					10 GHZ	240.7	237.4	291.9	276.3	COMPRESSED SNOW 16 INHES
					18 GHZ	221.0	217.8	301.9	273.3	INC=-.55V
					37 GHZ					
15	2	24	12	25	= 0	240.1	234.4	272.2	289.7	8 INCHES SNOW
					5 GHZ	259.6	259.0	311.1	271.4	BACK TO SHALLOW DEPTH
					10 GHZ	280.2	277.0	291.9	276.3	UNDESTRUCTED
					18 GHZ	221.6	221.5	301.9	273.3	INC=-1.25V
					37 GHZ					
16	2	24	12	32	= 40	244.2	226.9	272.2	289.7	8 INCHES SNOW
					5 GHZ	260.7	245.1	311.1	271.4	INC=-.16V
					10 GHZ	277.8	268.9	291.9	276.3	
					18 GHZ	234.3	231.3	301.9	273.3	
					37 GHZ					
17	2	24	13	15	= 40	242.2	228.5	272.2	289.7	SNOW REMOVED FROM GROUND
					5 GHZ	258.8	248.4	311.1	271.4	LOOKING AT BARE SOIL
					10 GHZ	280.3	271.0	291.9	276.3	INC=-.17V
					18 GHZ	258.4	258.6	301.9	273.3	
					37 GHZ					
18	2	24	13	16	= 0	232.7	229.7	272.2	289.7	SAME AS ABOVE
					5 GHZ	260.1	260.9	311.1	271.4	INC=-1.25V
					10 GHZ	281.0	277.6	291.9	276.3	
					18 GHZ	253.1	253.6	301.9	273.3	
					37 GHZ					
19	2	24	13	18	= 0	230.8	229.8	272.2	289.7	SNOW 21.5 INCHES
					5 GHZ	256.4	258.5	311.1	271.4	ANOTHER SPOT
					10 GHZ	242.8	244.3	291.9	276.3	
					18 GHZ	213.1	219.2	301.9	273.3	
					37 GHZ					
20	2	24	13	20	= 40	238.4	230.0	272.2	289.7	SAME AS ABOVE
					5 GHZ	261.9	260.9	311.1	271.4	INC=-.17V
					10 GHZ	242.6	241.9	291.9	276.3	
					18 GHZ	220.2	223.9	301.9	273.3	
					37 GHZ					

END OF RUN.

1978 SMMR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 2/27/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
1	2	27	14	35	0	248.9	250.4	299.8	281.0	PARTLY CLOUDY. LIGHT SNOW FALLING. BOOM AT 30 DEG. FULLY EXTENDED SNOW DEPTH 35 INCHES WITH 6 INCHES NEW POWDER. TEMP=0C. INC= -1.29V
					5 GHZ	253.1	253.8	311.7	280.3	
					10 GHZ	267.8	266.5	297.7	281.3	
					37 GHZ	253.3	250.3	304.2	281.2	
2	2	27	14	38	40	258.4	233.4	300.0	281.1	SAME AS ABOVE. NEAR FRAZIER COLO. PACKAGE MOVED TO 40 DEG. TEMP=0C. INC=.16V
					5 GHZ	258.3	242.8	311.7	280.2	
					10 GHZ	283.2	273.7	297.8	281.4	
					37 GHZ	259.1	256.0	304.5	281.2	
3	2	27	14	53	40	257.9	230.7	300.0	281.2	SAME AS ABOVE 40 DEG INC=.16V
					5 GHZ	258.3	242.3	311.7	280.2	
					10 GHZ	285.4	275.5	298.5	281.6	
					37 GHZ	260.2	257.1	305.7	281.1	
4	2	27	14	55	0	246.0	248.5	301.0	281.2	NO SNOW. LIGHT OVERCAST. NADIR, INC = -1.27
					5 GHZ	253.0	253.7	311.7	280.2	
					10 GHZ	285.2	281.6	298.5	281.7	
					37 GHZ	256.1	253.8	305.8	281.1	
5	2	27	15	10	40	244.5	246.6	301.8	281.5	SOME SNOW FALLING. HEAVY CLOUDS. TEMP=0C. 40 DEG, NADIR, INC=1.25V
					5 GHZ	251.3	251.3	311.7	280.3	
					10 GHZ	282.5	280.5	299.2	282.1	
					37 GHZ	247.3	245.2	306.8	281.2	
6	2	27	15	26	40	256.8	230.3	302.5	281.9	ANT AT 40 DEG. INC = .152 TEMP=0C. OVERCAST, NO SNOW FALLING
					5 GHZ	257.3	242.2	311.7	280.5	
					10 GHZ	284.1	275.1	299.8	282.7	
					37 GHZ	255.3	252.6	307.7	281.5	
7	2	27	15	30	0	243.2	245.2	302.7	282.1	ANT AT NADIR. INC = -1.27V OVERCAST. NO SNOW FALLING.
					5 GHZ	250.9	252.9	311.7	280.6	
					10 GHZ	282.6	279.2	300.0	282.8	
					37 GHZ	252.8	252.7	307.9	281.6	
8	2	27	15	45	0	241.7	243.2	303.1	282.6	SUNNY. TEMP=0C. INC= -1.24V
					5 GHZ	251.7	252.8	311.6	281.0	
					10 GHZ	282.7	280.0	300.7	283.6	
					37 GHZ	245.2	245.1	308.6	282.1	
9	2	27	15	47	40	257.3	228.0	303.2	282.7	ANT MOVED TO 40 DEG. SUNNY. TEMP=0C. INC=.15V
					5 GHZ	259.0	244.4	311.6	281.1	
					10 GHZ	282.6	274.9	300.7	283.7	
					37 GHZ	257.0	253.7	308.7	282.2	
10	2	27	16	0	40	258.0	228.5	303.5	283.3	40 DEG INC=.15V TEMP=1C SLIGHT OVERCAST SUNNY TARGET (HAZEY)
					5 GHZ	257.6	244.3	311.5	281.6	
					10 GHZ	284.5	276.0	301.3	284.4	
					37 GHZ	257.1	254.1	309.1	282.7	

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REC # 11,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	242.2	244.1	303.5	283.5	
DAY = 27	10 GHZ	251.8	253.4	311.5	281.7	
HR = 16	18 GHZ	281.9	280.4	301.4	284.5	
MIN = 2	37 GHZ	253.3	253.4	309.2	282.8	
						MOVED TO NADIR INC=-1.26V
						TEMP=1C.
REC # 12,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	238.3	239.6	303.6	284.8	
DAY = 27	10 GHZ	251.1	251.8	311.2	282.8	
HR = 16	18 GHZ	281.7	279.6	302.1	286.0	
MIN = 15	37 GHZ	243.4	238.8	309.5	284.1	
						SUNNY TARGET
						INC = -1.26 TEMP=1.0C
REC # 13,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	256.0	227.1	303.6	284.9	
DAY = 27	10 GHZ	258.1	244.8	311.2	282.9	
HR = 16	18 GHZ	280.8	274.0	302.2	286.1	
MIN = 17	37 GHZ	257.9	254.1	309.5	284.2	
						PARTLY SUNNY TARGET. HAZY SUN.
						INC = +.15V TEMP= 0.C
REC # 14,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	256.0	227.8	303.8	285.2	
DAY = 27	10 GHZ	256.8	245.4	311.1	283.1	
HR = 16	18 GHZ	281.3	273.8	302.6	286.5	
MIN = 30	37 GHZ	258.2	253.0	309.7	284.4	
						HAZY SUN. TEMP = 1.0C
						INC = +.15V
REC # 15,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	244.9	242.1	303.8	285.2	
DAY = 27	10 GHZ	248.8	250.8	311.1	283.2	
HR = 16	18 GHZ	279.9	277.5	302.7	286.6	
MIN = 32	37 GHZ	253.3	253.9	309.8	284.4	
						TEMP = +0.5C. INC = 1.26V
REC # 16,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	234.3	236.0	303.9	285.2	
DAY = 27	10 GHZ	249.5	249.3	311.1	283.2	
HR = 16	18 GHZ	280.7	277.5	303.0	286.6	
MIN = 45	37 GHZ	239.5	236.7	309.9	284.3	
						INC = -1.26V TEMP= -0.5C
						HAZY SUN
REC # 17,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	254.3	225.1	303.9	285.2	
DAY = 27	10 GHZ	256.9	245.0	311.2	283.1	
HR = 16	18 GHZ	278.6	272.0	303.0	286.6	
MIN = 47	37 GHZ	256.1	252.6	309.9	284.3	
						HAZE, TEMP= -1.0C, INC= .15V
REC # 18,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	255.2	226.3	304.0	284.8	
DAY = 27	10 GHZ	256.5	244.3	311.2	282.9	
HR = 17	18 GHZ	279.3	270.8	303.2	286.4	
MIN = 0	37 GHZ	254.6	249.5	310.0	283.9	
						FILTERED SUN, INC = +.15V
						TEMP = -1.0C
REC # 19,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	241.3	242.9	304.0	284.8	
DAY = 27	10 GHZ	248.0	248.2	311.2	282.8	
HR = 17	18 GHZ	279.8	276.1	303.3	286.3	
MIN = 2	37 GHZ	249.8	251.2	310.0	283.8	
						FILTERED SUN, VERY LOW INTENSITY.
						TEMP = -1.0C. INC = -1.27V
REC # 20,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	232.7	235.2	304.1	282.9	
DAY = 27	10 GHZ	247.5	248.2	311.6	281.3	
HR = 17	18 GHZ	279.9	276.1	303.3	284.5	
MIN = 15	37 GHZ	231.1	230.1	309.7	281.7	
						VERY LOW INTENSITY SUN
						TEMP = -1.5C
						INC=-1.27V

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
21	2	27	17	17	40	249.7	221.3	304.1	282.8	VERY INTENSITY SUN
					5 GHZ	256.0	240.9	311.6	281.2	TEMP = -2.0C
					10 GHZ	279.4	269.0	303.3	284.4	INC=.15V
					18 GHZ	247.4	240.7	309.7	281.7	
22	2	27	17	30	40	253.6	227.8	304.1	282.6	SUN ALMOST SET, VERY LITTLE SHADOW
					5 GHZ	255.0	234.8	311.6	281.1	INC=.15V
					10 GHZ	250.5	242.4	303.4	284.3	TEMP = -2.0C
					18 GHZ	239.5	231.1	309.7	281.4	
23	2	27	17	32	0	240.0	242.5	304.2	282.6	
					5 GHZ	244.8	245.4	311.6	281.1	
					10 GHZ	251.2	275.3	303.4	284.2	
					18 GHZ	223.9	227.1	309.7	281.4	
24	2	27	17	45	0	231.7	233.6	304.2	282.6	TEMP=-2.5C, SUNDOWN
					5 GHZ	244.5	245.1	311.6	281.1	INC = -1.26V
					10 GHZ	249.4	273.7	303.4	284.2	
					18 GHZ	202.3	201.8	309.7	281.4	
25	2	27	17	47	40	245.9	219.8	304.2	282.6	SUNDOWN, TEMP=-3C
					5 GHZ	251.9	231.4	311.6	281.1	
					10 GHZ	250.4	241.1	303.4	284.2	
					18 GHZ	227.3	215.8	309.7	281.4	
26	2	27	18	0	40	248.6	223.5	304.2	282.6	SUNDOWN, TEMP=-4C
					5 GHZ	250.4	229.0	311.6	281.1	
					10 GHZ	249.6	239.8	303.4	284.2	
					18 GHZ	217.5	206.0	309.7	281.4	
27	2	27	18	2	0	238.1	240.3	304.2	282.6	SUNDOWN, TEMP=-4C
					5 GHZ	239.3	240.3	311.6	281.1	
					10 GHZ	248.2	272.2	303.4	284.2	
					18 GHZ	206.0	208.0	309.7	281.4	

END OF RUN.

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
1,	2	28	8	0	0	245.8	247.4	292.4	267.4	SAME SITE AS 780227 - LOOKING NORTH, BOOM AT 30 DEG FULLY EXTENDED - SNOW DEPTH = 39 INCHES NEW SNOW. NO SUN YET. INC=-1.26V
					5 GHZ	294.4	263.6	304.0	266.8	
					18 GHZ	266.1	270.9	282.0	265.6	
					37 GHZ	206.7	205.8	291.5	266.4	
2,	2	28	8	2	40	252.1	228.0	292.7	267.4	INC=.15V OVERCAST SKY
					5 GHZ	259.1	233.1	304.2	266.9	
					18 GHZ	267.1	255.1	282.2	265.6	
					37 GHZ	212.8	199.6	291.8	266.5	
3,	2	28	10	0	0	246.3	250.0	301.8	275.1	INC=-1.26V, BRIGHT SUN, TEMP=-3C
					5 GHZ	276.7	265.2	312.3	273.4	
					18 GHZ	261.2	260.3	292.6	273.2	
					37 GHZ	196.0	194.7	304.9	274.3	
4,	2	28	10	2	35	251.2	230.7	301.9	275.4	ANTENNA HANGING FREE AT SLIGHTLY DIFFERENT ANGLE. NOW BRIGHT AND SUNNY. TEMP=-3C, INC=.08V
					5 GHZ	272.6	239.0	312.4	273.6	
					18 GHZ	260.9	248.4	292.8	273.5	
					37 GHZ	209.1	195.6	305.1	274.5	
5,	2	28	10	15	37	252.5	231.6	301.4	277.6	BRIGHT SUN TEMP=-4C INC=-.091V
					5 GHZ	260.1	236.6	311.1	275.3	
					18 GHZ	263.1	218.7	293.9	278.0	
					37 GHZ	211.9	197.4	306.3	277.3	
6,	2	28	10	17	0	214.0	247.9	301.4	277.8	BRIGHT SUN TEMP=-4C INC=-1.26V
					5 GHZ	273.3	255.4	311.1	275.5	
					18 GHZ	274.7	270.1	294.1	278.3	
					37 GHZ	207.3	209.7	306.5	277.5	
7,	2	28	10	35	140	254.3	233.0	302.1	280.0	BRIGHT SUN TEMP=-6C INC=-.12V
					5 GHZ	269.7	244.1	311.1	277.5	
					18 GHZ	265.1	221.3	296.0	281.2	
					37 GHZ	210.5	195.5	307.8	279.8	
8,	2	28	10	37	0	246.4	249.6	302.1	280.2	BRIGHT SUN TEMP=-6C INC=-1.26V
					5 GHZ	285.2	273.7	311.1	277.7	
					18 GHZ	263.8	263.6	296.2	281.5	
					37 GHZ	204.3	203.7	307.9	280.0	
9,	2	28	10	45	0	245.9	250.2	302.4	281.2	BRIGHT SUN TEMP=-2C INC=-1.26V
					5 GHZ	291.8	269.6	311.1	278.6	
					18 GHZ	258.9	257.5	297.1	282.7	
					37 GHZ	190.5	189.9	308.4	281.1	
10,	2	28	10	52	37	252.0	230.9	302.7	282.1	BOOM SHADOW EVIDENT NEAR X BAND TEMP=4C
					5 GHZ	272.5	240.9	311.1	279.4	
					18 GHZ	262.0	220.5	297.9	283.8	
					37 GHZ	209.2	194.5	308.8	281.9	

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REC # 11,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.		
MON = 2	5 GHZ	253.9	233.9	302.7	282.1	BRIGHT SUN	TEMP=-4C
DAY = 28	10 GHZ	255.9	237.4	311.1	279.4	INC=-.11V	
HR = 10	18 GHZ	247.3	236.5	297.9	283.8		
MIN = 52	37 GHZ	211.1	198.7	308.8	281.9		
REC # 12,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.		
MON = 2	5 GHZ	240.7	244.1	303.3	284.0	SNOW SURFACE TEMP=-8C	
DAY = 28	10 GHZ	293.0	265.1	311.2	281.2	SUN NOW BEHIND CLOUD, TEMP=-5C	
HR = 11	18 GHZ	246.5	271.2	299.6	286.0	NO BRIGHT SUN, INC=1.26V	
MIN = 7	37 GHZ	191.7	189.6	309.6	283.8		
REC # 13,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.		
MON = 2	5 GHZ	245.5	249.3	303.8	285.8	BRIGHT SUN	TEMP=-2C
DAY = 28	10 GHZ	279.7	269.5	311.2	282.9	INC=-1.26V	
HR = 11	18 GHZ	247.2	270.0	301.1	287.8		
MIN = 20	37 GHZ	190.8	188.5	310.2	285.5		
REC # 14,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.		
MON = 2	5 GHZ	254.0	234.7	303.9	286.0	HAZY SUN	INC=.16V
DAY = 28	10 GHZ	269.7	244.2	311.2	283.1		
HR = 11	18 GHZ	246.2	236.2	301.4	288.1		
MIN = 22	37 GHZ	213.3	200.9	310.3	285.7		
REC # 15,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.		
MON = 2	5 GHZ	248.6	232.4	304.4	287.8	FILTERED SUN	
DAY = 28	10 GHZ	270.6	240.5	311.3	284.8	TEMP=-1C, INC=.16V	
HR = 11	18 GHZ	245.8	233.4	303.0	289.8		
MIN = 35	37 GHZ	214.2	201.1	310.8	287.4		
REC # 16,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.		
MON = 2	5 GHZ	246.0	249.5	304.5	288.1	TEMP=-.5C, INC=-1.26V	
DAY = 28	10 GHZ	286.5	275.7	311.3	285.1	FILTERED TO BRIGHT SUN	
HR = 11	18 GHZ	245.8	269.4	303.3	290.1		
MIN = 37	37 GHZ	201.9	202.7	310.8	287.6		
REC # 17,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.		
MON = 2	5 GHZ	244.0	247.4	305.3	290.4	BRIGHT SUN AND SHADOW, HAZY SUN	
DAY = 28	10 GHZ	280.0	265.5	311.5	287.5	TEMP=0C, INC=-1.26V	
HR = 11	18 GHZ	245.2	268.4	306.0	292.0		
MIN = 50	37 GHZ	186.4	186.9	311.1	289.6		
REC # 18,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.		
MON = 2	5 GHZ	253.7	233.8	305.4	290.6	FILTERED SUN.	
DAY = 28	10 GHZ	266.4	237.3	311.5	287.7	TEMP=-5C, INC=.14V	
HR = 11	18 GHZ	243.9	234.2	306.3	292.3		
MIN = 52	37 GHZ	214.3	201.6	311.1	289.8		
REC # 19,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.		
MON = 2	5 GHZ	254.4	233.9	305.9	292.3	MODERATELY BRIGHT SUN.	
DAY = 28	10 GHZ	273.4	240.9	311.6	289.3	TEMP=0C, INC=.15V	
HR = 12	18 GHZ	244.7	234.3	307.5	293.7		
MIN = 5	37 GHZ	217.5	206.4	311.4	291.3		
REC # 20,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.		
MON = 2	5 GHZ	245.1	248.5	305.9	292.5	MODERATE SUN.	
DAY = 28	10 GHZ	280.9	264.5	311.6	289.5	TEMP=-4C, INC=-1.26V	
HR = 12	18 GHZ	238.8	240.4	307.7	293.9		
MIN = 7	37 GHZ	203.2	203.0	311.5	291.5		

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REC # 21,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	240.5	244.0	306.4	294.0	MODERATELY BRIGHT SUN.
DAY = 28	10 GHZ	284.1	259.1	311.6	291.0	INC = -1.25V
HR = 12	18 GHZ	234.4	236.0	308.7	295.2	
MIN = 20	37 GHZ	186.6	186.2	311.7	292.9	
REC # 22,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	253.0	232.8	306.4	294.2	HAZY MODERATE SUN.
DAY = 28	10 GHZ	257.4	238.0	311.6	291.2	TEMP=-4C, INC=.17V
HR = 12	18 GHZ	234.7	227.3	308.9	295.4	
MIN = 22	37 GHZ	219.3	208.0	311.8	293.1	
REC # 23,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	253.9	234.1	306.8	295.5	BRIGHT SUN INC=.17V
DAY = 28	10 GHZ	256.9	237.0	311.7	292.5	TEMP=-3.5C
HR = 12	18 GHZ	236.7	227.3	309.6	296.6	
MIN = 35	37 GHZ	221.3	208.8	311.9	294.4	
REC # 24,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	245.2	248.1	306.9	295.7	TEMP=-3.5C, INC=.17V
DAY = 28	10 GHZ	271.0	255.8	311.7	292.7	BRIGHT SUN
HR = 12	18 GHZ	235.3	236.7	309.7	296.7	
MIN = 37	37 GHZ	206.0	208.1	312.0	294.6	
REC # 25,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	234.6	239.1	307.2	297.0	
DAY = 28	10 GHZ	263.4	264.3	311.7	293.8	
HR = 12	18 GHZ	238.0	238.0	310.2	297.7	
MIN = 50	37 GHZ	190.1	190.8	312.1	295.7	
REC # 26,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	249.9	228.8	307.2	297.2	BRIGHT SUN TEMP=-2C
DAY = 28	10 GHZ	258.2	241.5	311.7	294.0	INC=.19V
HR = 12	18 GHZ	238.2	228.0	310.2	297.8	
MIN = 52	37 GHZ	228.4	217.3	312.1	295.9	
REC # 27,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	252.8	232.6	307.6	298.5	BRIGHT SUN, TEMP=-1C, INC=-.19V
DAY = 28	10 GHZ	257.1	238.5	311.6	295.2	SURFACE MELT STARTS AT 1300 TRACE-
HR = 13	18 GHZ	239.7	228.8	309.8	299.7	RAY JONES
MIN = 5	37 GHZ	234.3	226.2	312.0	297.1	
REC # 28,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	246.1	249.3	307.6	298.6	BRIGHT SUN, TEMP=-2C, INC=-1.26V
DAY = 28	10 GHZ	271.6	261.0	311.6	295.4	
HR = 13	18 GHZ	237.8	239.5	309.8	299.8	
MIN = 7	37 GHZ	225.8	227.5	312.0	297.3	
REC # 29,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	232.1	236.8	307.8	299.5	BRIGHT SUN, TEMP=-3C, INC=-1.27V
DAY = 28	10 GHZ	284.1	268.1	311.6	296.2	
HR = 13	18 GHZ	238.3	237.9	310.1	299.9	
MIN = 20	37 GHZ	202.2	202.6	312.1	298.2	
REC # 30,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	247.1	224.7	307.8	299.6	BRIGHT SUN
DAY = 28	10 GHZ	255.3	234.8	311.6	296.3	SURFACE MELT APPORACHING 2 %
HR = 13	18 GHZ	235.2	230.2	310.1	299.9	TEMP=-3.5C, INC=.19V
MIN = 22	37 GHZ	238.7	232.0	312.1	298.3	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
31	2	28	13	35	40	250.2	228.4	308.0	300.3	BRIGHT SUN
					5 GHZ	253.7	236.4	311.6	297.0	TEMP=-3.5C, INC=.19V
					10 GHZ	237.4	229.6	310.3	299.6	
					18 GHZ	239.7	233.8	312.1	299.0	
32	2	28	13	37	0	245.4	247.5	308.0	300.4	BRIGHT SUN, TEMP=-3C
					5 GHZ	278.9	266.6	311.6	297.0	INC=-1.26V
					10 GHZ	237.7	238.0	310.3	299.5	
					18 GHZ	230.4	232.3	312.1	299.1	
33	2	28	13	50	0	231.4	233.9	308.1	301.0	BRIGHT SUN
					5 GHZ	270.9	266.8	311.6	297.5	TEMP=-3C
					10 GHZ	237.0	239.1	310.4	298.6	
					18 GHZ	208.0	207.6	312.2	299.7	
34	2	28	13	52	40	244.7	221.4	308.1	301.0	INC=.19V, TEMP=-3C
					5 GHZ	264.4	236.7	311.6	297.5	
					10 GHZ	235.7	230.5	310.4	298.4	
					18 GHZ	235.8	229.1	312.2	299.8	
35	2	28	14	5	40	245.5	222.3	308.1	301.4	INC=.19V, TEMP=-2C
					5 GHZ	265.8	239.1	311.6	297.8	
					10 GHZ	236.5	229.5	310.4	297.0	
					18 GHZ	236.4	230.4	312.2	300.3	
36	2	28	14	7	0	238.3	241.1	307.9	301.3	INC=-1.26V
					5 GHZ	268.0	277.7	311.6	297.6	
					10 GHZ	237.2	236.9	310.2	293.6	
					18 GHZ	230.7	231.5	312.1	300.3	
37	2	28	14	30	0	248.2	249.7	307.9	301.5	NEW NITROGEN ADDED. HAZY SUN.
					5 GHZ	288.7	279.7	311.6	297.7	RAY JONES FOUND NO SURFACE MELT AT
					10 GHZ	233.3	234.5	310.2	291.6	1400. TEMP=-2C, INC=-1.2V
					18 GHZ	222.1	225.5	312.1	300.7	
38	2	28	14	32	40	254.9	235.1	307.9	301.5	BRIGHT SUN
					5 GHZ	276.2	237.3	311.6	297.7	TEMP=-1.5C
					10 GHZ	234.5	226.1	310.2	291.5	
					18 GHZ	231.5	222.4	312.1	300.8	
39	2	28	14	45	40	254.6	244.3	307.9	301.5	BRIGHT SUN, TEMP=-3C
					5 GHZ	277.1	235.3	311.6	297.6	
					10 GHZ	232.6	224.4	310.2	291.0	
					18 GHZ	232.6	225.0	312.1	300.8	
40	2	28	14	47	0	247.8	249.2	307.9	301.4	TEMP=-3C, INC=-1.27V
					5 GHZ	289.5	289.8	311.6	297.5	BRIGHT SUN
					10 GHZ	233.5	234.8	310.2	291.0	
					18 GHZ	226.4	229.7	312.1	300.8	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 41,	2				0					
MON =	28				5 GHZ	248.4	249.6	307.9	301.2	SUN NOT SO BRIGHT. SOME FILTERING
DAY =	15				10 GHZ	289.7	276.6	311.6	297.3	BY CLOUDS AND LOW ANGLE.
HR =	0				18 GHZ	232.7	234.6	310.3	291.0	INC = -1.27V
MIN =					37 GHZ	214.0	218.2	312.1	300.6	
REC # 42,	2				40					
MON =	28				5 GHZ	254.9	234.8	307.9	301.2	SUN SAME AS IN REC 41.
DAY =	15				10 GHZ	261.2	233.2	311.6	297.3	INC = .19V
HR =	2				18 GHZ	233.9	227.3	310.3	291.1	
MIN =					37 GHZ	230.1	221.0	312.1	300.6	
REC # 43,	2				40					
MON =	28				5 GHZ	254.9	235.1	307.9	300.8	SUN SAME AS IN REC 41.
DAY =	15				10 GHZ	261.3	230.4	311.6	297.0	TEMP=-4C, INC=-.19V
HR =	15				18 GHZ	233.3	226.6	310.3	291.6	SURFACE TEMP IS 1C - BY RAY JONES
MIN =					37 GHZ	228.9	219.4	312.1	300.3	
REC # 44,	2				0					
MON =	28				5 GHZ	248.2	250.0	307.9	300.7	BRIGHT SUN, INC=-1.26V
DAY =	15				10 GHZ	290.8	273.6	311.6	296.9	
HR =	17				18 GHZ	236.1	234.8	310.3	291.7	
MIN =					37 GHZ	220.7	222.6	312.1	300.2	
REC # 45,	2				0					
MON =	28				5 GHZ	248.3	249.9	308.1	300.1	SOME HAZE, FILTERED SUN,
DAY =	15				10 GHZ	277.1	264.1	314.1	296.4	INC=-1.25V
HR =	30				18 GHZ	234.4	234.4	310.8	296.8	
MIN =					37 GHZ	210.2	212.8	312.3	297.4	
REC # 46,	2				40					
MON =	28				5 GHZ	255.2	234.8	308.1	300.0	SUN SAME AS REC 45.
DAY =	15				10 GHZ	275.4	234.0	314.0	296.4	TEMP=-5C, INC=.2V
HR =	32				18 GHZ	234.5	226.1	310.8	296.9	
MIN =					37 GHZ	227.9	219.2	312.3	297.3	
REC # 47,	2				40					
MON =	28				5 GHZ	255.3	235.5	308.0	299.3	SUN EASING INTENSITY NOW
DAY =	15				10 GHZ	264.9	231.7	313.4	295.8	TEMP=-1C, INC=.2V
HR =	45				18 GHZ	233.3	226.1	310.8	297.5	
MIN =					37 GHZ	227.5	218.0	312.2	297.3	
REC # 48,	2				0					
MON =	28				5 GHZ	247.7	250.0	308.0	299.2	SUN EASING INTENSITY NOW
DAY =	15				10 GHZ	271.8	263.9	313.3	295.7	INC=-1.26V
HR =	47				18 GHZ	234.9	237.2	310.8	297.6	
MIN =					37 GHZ	222.3	228.0	312.2	297.3	
REC # 49,	2				0					
MON =	28				5 GHZ	247.3	249.9	308.0	298.5	SUN HAZY LONG SHADOWS
DAY =	16				10 GHZ	291.2	258.6	312.2	295.0	TEMP=-3C, INC=-1.26V
HR =	0				18 GHZ	234.1	235.8	310.7	297.8	
MIN =					37 GHZ	205.9	206.3	312.1	297.6	
REC # 50,	2				40					
MON =	28				5 GHZ	255.5	235.1	307.9	298.3	INC=.23V
DAY =	16				10 GHZ	263.2	230.2	312.0	294.9	
HR =					18 GHZ	236.6	227.9	310.7	297.8	
MIN =					37 GHZ	224.3	215.4	312.1	297.7	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	LOW SUN	TEMP	INC
51	2	28	16	15	40	254.9	235.1	307.8	297.4	LOW SUN	-5.5C	.22V
					5 GHZ	256.1	228.5	310.3	294.1			
					10 GHZ	236.3	227.7	310.5	297.7			
					37 GHZ	225.3	216.6	312.0	298.4			
52	2	28	16	17	0	247.0	249.9	307.8	297.3	LOW SUN	-5.5C	-1.26V
					5 GHZ	273.9	257.0	310.0	294.0			
					10 GHZ	233.7	233.1	310.5	297.7			
					37 GHZ	215.1	214.7	312.0	298.5			
53	2	28	16	30	0	246.3	248.4	307.7	296.3	SUN LOW	-5C	-1.27V
					5 GHZ	276.4	259.3	307.8	293.1			
					10 GHZ	233.4	233.9	310.2	297.1			
					37 GHZ	196.4	195.8	311.9	299.6			
54	2	28	16	32	40	253.0	233.5	307.7	296.1	LOW SUN	-5C	.22V
					5 GHZ	251.0	227.1	307.4	293.0			
					10 GHZ	235.6	226.0	310.2	297.0			
					37 GHZ	224.0	212.2	311.8	299.8			
55	2	28	16	45	40	254.1	234.6	307.5	295.0	LOW SUN	-5C	.22V
					5 GHZ	248.3	226.1	304.7	291.9			
					10 GHZ	235.5	228.1	309.9	296.2			
					37 GHZ	222.4	210.9	311.7	301.2			
56	2	28	16	47	0	247.6	250.7	307.5	294.8	LOW SUN	-1.26V	
					5 GHZ	256.3	254.0	304.2	291.8			
					10 GHZ	233.7	233.7	309.8	296.0			
					37 GHZ	220.6	220.1	311.6	301.5			
57	2	28	17	0	0	243.2	246.9	306.8	291.1	LOW SUN	-6C	-1.26V
					5 GHZ	243.8	247.4	293.3	288.4			
					10 GHZ	238.9	240.6	308.4	291.1			
					37 GHZ	193.2	187.5	310.9	307.8			
58	2	28	17	2	40	251.4	232.0	306.8	291.0	LOW SUN	-6.5C	.22V
					5 GHZ	240.6	219.7	292.9	288.2			
					10 GHZ	233.7	226.5	308.3	290.9			
					37 GHZ	219.8	202.9	310.9	308.0			
59	2	28	17	15	40	255.2	236.1	306.7	290.2	LOW SUN	-9C	.23V
					5 GHZ	240.3	220.1	291.0	287.6			
					10 GHZ	236.1	226.5	308.1	290.2			
					37 GHZ	218.8	202.2	310.8	309.0			
60	2	28	17	17	0	247.9	251.4	306.7	290.1	LOW SUN	-9C	-1.27V
					5 GHZ	258.2	254.6	290.8	287.5			
					10 GHZ	231.8	233.6	308.1	290.1			
					37 GHZ	211.4	208.1	310.7	309.2			

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REC # 61,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	241.4	245.7	306.6	289.8	
DAY = 28	10 GHZ	252.6	242.3	289.9	287.2	LOW SUN ALMOST SET
HR = 17	18 GHZ	234.6	236.1	307.9	289.8	TEMP=-10C, INC=-1.26V
MIN = 30	37 GHZ	186.2	178.6	310.7	309.7	
REC # 62,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	250.6	230.7	306.6	289.8	
DAY = 28	10 GHZ	234.0	217.1	289.8	287.1	SUN GOING DOWN
HR = 17	18 GHZ	235.0	223.7	307.9	289.7	TEMP=-10C, INC=.23V
MIN = 32	37 GHZ	214.8	195.2	310.7	309.7	
REC # 63,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	254.7	235.9	306.6	289.7	
DAY = 28	10 GHZ	234.3	217.6	289.7	287.1	SUN BEHIND MOUNTAIN
HR = 17	18 GHZ	238.4	229.0	307.9	289.7	TEMP=-11C, INC=.23V
MIN = 45	37 GHZ	213.7	193.0	310.7	309.7	
REC # 64,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	246.8	250.2	306.6	289.7	
DAY = 28	10 GHZ	259.8	250.4	289.7	287.1	SUN HAS SET, TEMP=-11C
HR = 17	18 GHZ	238.2	239.4	307.9	289.7	INC=-1.27V
MIN = 47	37 GHZ	207.3	200.8	310.7	309.7	
REC # 65,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	237.0	241.0	306.6	289.7	
DAY = 28	10 GHZ	220.4	222.0	289.7	287.1	SUN HAS SET, TEMP=-12C
HR = 18	18 GHZ	238.5	240.7	307.9	289.7	INC=-1.27V
MIN = 0	37 GHZ	173.1	162.9	310.7	309.7	
REC # 66,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 2	5 GHZ	249.8	229.9	306.6	289.7	
DAY = 28	10 GHZ	229.6	205.3	289.7	287.1	INC=-.18V
HR = 18	18 GHZ	239.5	232.2	307.9	289.7	
MIN = 2	37 GHZ	210.5	188.4	310.7	309.7	

END OF RUN.

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REC #	INCLIN	FREQ	T(V)	T(H)	HOT LD.	ANT.	REMARKS
REC # 1,	INCLIN = 0						
MON = 3	5 GHZ	61.8	72.2	298.6	271.6		
DAY = 1	10 GHZ	114.4	121.2	311.1	270.9		
HR = 10	18 GHZ	120.9	116.8	289.7	273.9		
MIN = 50	37 GHZ	24.9	39.7	299.5	271.9		
							SNOW FALLING. HEAVY OVERCAST. APPROX 1 MM SNOW AT END OF CAL. TEMP=-5C, INC=-1.26V, BOON 20 DEG 2 4X8, 10 FT HIGH. SPOT SCAN.
REC # 2,	INCLIN = 20						
MON = 3	5 GHZ	30.6	20.3	299.4	272.2		
DAY = 1	10 GHZ	15.4	17.1	311.0	271.6		
HR = 11	18 GHZ	31.1	31.1	290.5	274.8		
MIN = 10	37 GHZ	22.4	29.4	301.0	272.5		
							SNOW MELTING ON PLATE SOME SNOW - STICKING TO PLATE TEMP=-2C, INC=-.55V
REC # 3,	INCLIN = 45						
MON = 3	5 GHZ	11.9	11.6	300.0	272.9		
DAY = 1	10 GHZ	20.4	18.2	311.0	272.3		
HR = 11	18 GHZ	45.4	39.2	291.3	275.8		
MIN = 26	37 GHZ	65.3	50.9	302.2	273.2		
							FREE HANG. SNOW BUILDING SLOWLY, PLATE STILL NOT COVERED, SOME MELT. SLANT HEIGHT= 8 FT. TEMP=-3C, INC=.24V
REC # 4,	INCLIN = 0						
MON = 3	5 GHZ	240.2	244.8	303.4	281.4		
DAY = 1	10 GHZ	262.8	265.0	311.1	280.1		
HR = 13	18 GHZ	263.6	267.8	299.1	284.2		
MIN = 0	37 GHZ	193.4	190.5	307.9	281.1		
							SNOW IS STILL 39 IN. DEEP. BACK TO DIURNAL MEASUREMENTS. SNOW FALLING, SKY CLOUDY. NASA2 -1 INC=-1.25V, SAME AS 2/27 & 2/28.
REC # 5,	INCLIN = 45						
MON = 3	5 GHZ	250.2	234.3	303.6	282.3		
DAY = 1	10 GHZ	260.6	235.4	311.2	280.9		
HR = 13	18 GHZ	268.8	252.8	299.9	285.1		
MIN = 7	37 GHZ	216.2	204.9	308.3	281.9		
							SKY PT CLOUDY, SNOW FALLING. HANGING FREE TEMP=3C, INC=.3V
REC # 6,	INCLIN = 45						
MON = 3	5 GHZ	251.3	234.6	304.4	285.6		
DAY = 1	10 GHZ	255.5	242.3	311.4	283.7		
HR = 13	18 GHZ	263.1	249.6	302.6	288.0		
MIN = 30	37 GHZ	214.4	201.8	309.4	284.9		
							INC=.30V
REC # 7,	INCLIN = 0						
MON = 3	5 GHZ	244.2	247.8	304.8	288.1		
DAY = 1	10 GHZ	253.3	252.1	311.5	285.9		
HR = 13	18 GHZ	263.8	269.0	304.6	291.2		
MIN = 38	37 GHZ	205.5	205.4	310.0	287.3		
							OVERCAST SKY, FILTERED SUN. TEMP=3.5C, INC=-1.26V
REC # 8,	INCLIN = 0						
MON = 3	5 GHZ	234.3	238.7	305.4	290.4		
DAY = 1	10 GHZ	250.9	248.8	311.6	288.0		
HR = 14	18 GHZ	260.4	267.0	306.6	292.4		
MIN = 0	37 GHZ	179.1	175.8	310.7	289.5		
							FILTERED SUN, TEMP=2.5C INC=-1.26V
REC # 9,	INCLIN = 45						
MON = 3	5 GHZ	251.2	232.0	305.5	290.9		
DAY = 1	10 GHZ	254.5	234.2	311.7	288.4		
HR = 14	18 GHZ	262.7	247.7	307.1	292.3		
MIN = 7	37 GHZ	210.1	197.9	310.8	290.0		
							OVERCAST SKY, FILTERED SUN. FREE HANG
REC # 10,	INCLIN = 45						
MON = 3	5 GHZ	253.7	234.6	305.8	291.8		
DAY = 1	10 GHZ	255.2	236.4	311.7	289.1		
HR = 14	18 GHZ	266.9	253.7	308.1	290.7		
MIN = 30	37 GHZ	227.8	219.7	311.0	290.7		
							BRIGHT SUN, SOME SNOW FALLING. INC=.30V

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 11,					INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	241.8	245.2	305.7	291.1	
DAY = 1					10 GHZ	268.9	257.7	311.7	288.4	
HR = 14					18 GHZ	266.4	271.7	307.7	286.6	
MIN = 37					37 GHZ	227.2	227.3	310.7	290.0	
										SNOW ENDED, BRIGHT SUN. TEMP=4.5C, INC=-1.25V
REC # 12,					INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	220.7	225.3	305.8	291.1	
DAY = 1					10 GHZ	268.8	259.2	311.6	288.4	
HR = 15					18 GHZ	256.4	260.6	307.9	285.2	
MIN = 0					37 GHZ	210.4	208.1	310.7	290.0	
										SNOW ENDED, SAME AS ABOVE. SKY PARTLY SUNNY TEMP=4.5C
REC # 13,					INCLIN = 45	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	231.7	208.8	305.8	291.1	
DAY = 1					10 GHZ	254.6	238.0	311.6	288.4	
HR = 15					18 GHZ	257.0	252.2	307.9	285.1	
MIN = 6					37 GHZ	238.2	228.6	310.6	289.9	
										LIGHT SNOW FALLING, TEMP=4C CLOUDS HEAVY. INC=-.3V FREE HANG
REC # 14,					INCLIN = 45	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	256.4	238.3	305.8	290.6	
DAY = 1					10 GHZ	252.9	239.6	311.4	288.2	
HR = 15					18 GHZ	255.9	249.9	307.6	285.8	
MIN = 30					37 GHZ	255.4	248.1	310.5	289.3	
										HEAVY CLOUDS, LIGHT SNOW FALLING. TEMP=3C, INC=.3V
REC # 15,					INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	245.6	248.4	305.8	289.7	
DAY = 1					10 GHZ	264.7	255.3	311.2	287.8	
HR = 15					18 GHZ	256.4	263.5	306.8	288.8	
MIN = 42					37 GHZ	251.4	252.8	310.3	288.4	
										HEAVY CLOUDS, LIGHT SNOW TEMP=1C, INC=-1.26V
REC # 16,					INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	245.7	247.7	305.8	289.5	
DAY = 1					10 GHZ	259.0	256.6	311.1	287.7	
HR = 16					18 GHZ	256.7	261.7	306.6	289.3	
MIN = 0					37 GHZ	245.5	246.1	310.2	288.2	
										SUN GOING TO HEAVY SHADOW TEMP=1.5C, INC=-1.26V
REC # 17,					INCLIN = 45	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	256.2	237.6	305.8	289.5	
DAY = 1					10 GHZ	255.7	241.8	311.1	287.7	
HR = 16					18 GHZ	262.4	259.5	306.6	289.3	
MIN = 10					37 GHZ	254.1	251.3	310.2	288.2	
										FREE HANG. SNOWING HARD. SUN NOT OUT OF HEAVY SHADOW TEMP=1.5C, INC=.3V
REC # 18,					INCLIN = 45	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	255.7	237.2	305.8	289.5	
DAY = 1					10 GHZ	255.7	240.9	311.1	287.7	
HR = 16					18 GHZ	271.8	269.1	306.6	289.3	
MIN = 30					37 GHZ	254.0	252.2	310.2	288.2	
										LIGHT SNOW, HEAVY CLOUDS FREE HANG, TEMP=1.5C INC=.30V
REC # 19,					INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	244.4	246.7	305.8	289.5	
DAY = 1					10 GHZ	260.6	253.5	311.1	287.7	
HR = 16					18 GHZ	270.9	276.9	306.6	289.3	
MIN = 40					37 GHZ	251.7	253.2	310.2	288.2	
										LIGHT SNOW, HEAVY CLOUDS, NO SUN TEMP=1C, INC=-1.26V

END OF RUN.

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	NOTES
1	3	2	9	20	0	61.4	60.5	282.8	272.7	2 4X8 METAL PLATES. 0.75 INCHES OF SNOW ACCUMULATED SINCE YESTERDAY. ANT OVER PLATE CENTERED ON 5 GHZ. TEMP=1.5C, INC=-1.26V
					5 GHZ	159.8	161.0	291.8	272.6	
					18 GHZ	217.8	213.6	280.9	266.0	
					37 GHZ	183.4	188.7	284.8	272.8	
2	3	2	9	26	0	93.7	68.0	285.1	273.1	CENTERED ON 18-37 GHZ ABOVE PLATE TEMP=1.5C, INC=-1.26V DATA RECORDED ON TAPE NAS2 (FILE 2)
					5 GHZ	193.6	192.7	295.2	273.0	
					18 GHZ	218.0	221.6	282.1	266.2	
					37 GHZ	196.2	196.0	286.9	273.2	
3	3	2	9	36	0	85.5	119.0	288.6	273.6	CENTERED ON X BAND, SPOT (10 GHZ) TEMP=2C, INC=-1.26V
					5 GHZ	165.3	163.1	300.6	273.5	
					18 GHZ	249.2	250.0	284.0	266.6	
					37 GHZ	221.9	219.2	290.2	273.8	
4	3	2	10	0	20	41.2	33.5	295.9	275.0	C BAND CENTERED ON PLATES STILL UNDER .75 INS. SNOW TEMP=1C INC=-.55V SPOT (5 GHZ)
					5 GHZ	87.2	81.1	311.1	274.6	
					18 GHZ	180.2	173.3	288.0	267.8	
					37 GHZ	175.8	177.2	297.0	275.2	
5	3	2	10	6	20	80.9	49.2	297.4	275.4	SNOW STILL .75 IN DEEP ON PLATES. TEMP=1C INC=-.55V SPOT (18-37 GHZ)
					5 GHZ	247.1	246.3	313.3	274.8	
					18 GHZ	175.7	168.5	288.8	268.1	
					37 GHZ	183.6	180.1	298.5	275.5	
6	3	2	10	12	20	51.8	52.6	298.8	275.8	SNOW STILL .75 IN DEEP ON PLATES TEMP=2.5C INC=.54V SPOT (10 GHZ)
					5 GHZ	110.0	101.3	315.3	275.0	
					18 GHZ	151.7	146.3	289.6	268.4	
					37 GHZ	225.4	218.7	299.9	275.9	
7	3	2	10	17	45	35.8	31.4	299.9	276.1	SNOW STILL .75 IN DEEP TEMP=2C INC=-.29V SPOT (5 GHZ)
					5 GHZ	116.2	83.1	316.8	275.1	
					18 GHZ	203.8	180.8	290.2	268.7	
					37 GHZ	195.7	183.8	301.0	276.1	
8	3	2	10	25	45	54.2	29.0	301.6	276.6	SNOW STILL .75 IN DEEP TEMP=1.5C INC=-.28V SPOT (18-37 GHZ)
					5 GHZ	249.9	239.3	318.9	275.3	
					18 GHZ	188.7	163.1	291.0	269.1	
					37 GHZ	203.4	193.6	302.6	276.6	
9	3	2	11	22	45	56.4	42.5	301.6	282.5	SNOW STILL .75 IN DEEP TEMP=1C INC=-.27V SPOT (10 GHZ) THE TIME 1122 IS AN ESTIMATE
					5 GHZ	132.9	94.2	310.6	269.8	
					18 GHZ	186.2	164.1	287.6	272.9	
					37 GHZ	214.1	200.6	305.2	281.0	
10	3	2	12	20	140	2.7	2.4	303.4	285.2	SKY OVERCAST LIGHT SNOW TEMP=0C, INC=2.62V
					5 GHZ	0.9	1.1	310.7	272.2	
					18 GHZ	-2.1	2.3	291.1	281.0	
					37 GHZ	20.6	30.6	307.9	283.3	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 11,					INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	245.9	249.9	303.5	285.6	
DAY = 2					10 GHZ	309.4	308.6	310.8	274.1	
HR = 12					18 GHZ	280.9	285.9	293.1	282.3	
MIN = 40					37 GHZ	249.9	251.6	308.3	283.8	
										LOOKING AT SAME SPOT AS ON 27,28,18
										2. SNOW DEPTH = 38 INCHES.
										TEMP=0C, INC=-1.2V
REC # 12,					INCLIN = 5	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	244.1	245.9	303.5	285.7	
DAY = 2					10 GHZ	310.7	331.5	310.8	275.3	
HR = 12					18 GHZ	274.6	278.1	294.3	282.9	
MIN = 50					37 GHZ	244.6	241.3	308.4	283.9	
										SNOW FALLING OVERCAST SKY
										INC=-.98V
REC # 13,					INCLIN = 10	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	242.3	245.3	303.5	285.7	
DAY = 2					10 GHZ	310.8	305.1	310.8	275.9	
HR = 12					18 GHZ	275.5	281.4	294.7	283.1	
MIN = 54					37 GHZ	247.2	246.8	308.4	283.9	
										TEMP=-1C, INC=-.8V
REC # 14,					INCLIN = 15	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	241.6	245.6	303.0	285.4	
DAY = 2					10 GHZ	327.1	308.5	311.1	279.6	
HR = 13					18 GHZ	273.8	276.4	298.1	283.9	
MIN = 9					37 GHZ	244.9	241.6	307.9	283.8	
										TEMP=.5C, INC=-.62V
REC # 15,					INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	243.7	244.0	303.0	285.5	
DAY = 2					10 GHZ	322.6	316.2	311.1	280.7	
HR = 13					18 GHZ	275.2	275.8	299.0	284.4	
MIN = 20					37 GHZ	246.0	243.6	307.9	283.9	
										TEMP=0C, INC=-.47V
REC # 16,					INCLIN = 25	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	102.1	243.0	303.0	285.6	
DAY = 2					10 GHZ	314.2	291.3	311.2	281.7	
HR = 13					18 GHZ	98.0	273.4	299.9	284.9	
MIN = 32					37 GHZ	250.3	260.3	307.9	284.1	
										TEMP=.5C, INC=-.27V
REC # 17,					INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	248.3	241.0	303.0	285.6	
DAY = 2					10 GHZ	304.4	273.9	311.2	282.3	
HR = 13					18 GHZ	275.0	271.2	300.3	285.2	
MIN = 40					37 GHZ	248.7	244.2	308.0	284.2	
										TEMP=2.5C
REC # 18,					INCLIN = 35	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	248.2	238.4	303.0	285.7	
DAY = 2					10 GHZ	287.3	259.4	311.2	282.8	
HR = 13					18 GHZ	273.9	270.8	300.7	285.5	
MIN = 50					37 GHZ	248.6	243.0	308.0	284.3	
										TEMP=3C, INC=.1V
REC # 19,					INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	251.7	234.9	303.1	285.8	
DAY = 2					10 GHZ	280.6	259.0	311.2	283.1	
HR = 13					18 GHZ	275.6	266.3	300.8	285.7	
MIN = 57					37 GHZ	248.9	242.8	308.1	284.4	
										TEMP=3C, INC=.28V
										FREE HANGING
REC # 20,					INCLIN = 45	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	257.4	231.8	303.2	286.0	
DAY = 2					10 GHZ	277.4	242.6	311.1	283.0	
HR = 14					18 GHZ	274.0	264.9	300.3	286.1	
MIN = 10					37 GHZ	249.1	242.5	308.3	284.6	
										TEMP=-.5C, INC=.46V

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	TEMP	INC	NOTES
21	3	2	14	20	50	258.4	226.0	303.3	286.1	0C	.65V	
					5 GHZ	275.2	236.7	311.1	283.2			
					10 GHZ	272.6	257.6	300.4	286.3			
					18 GHZ	247.0	237.0	308.3	284.7			
22	3	2	14	35	55	261.3	224.3	303.4	286.2	1C	.85V	
					5 GHZ	270.7	234.8	311.2	283.6			
					10 GHZ	272.3	252.6	300.5	286.6			
					18 GHZ	246.2	236.2	308.4	284.8			
23	3	2	14	42	60	260.9	225.0	303.5	286.2			FILE 3, REC #1 RENUMBERED REC #23.
					5 GHZ	282.4	236.3	311.2	283.8			SNOW STILL FALLING BUT LIGHTLY
					10 GHZ	268.2	246.0	300.5	286.7			TEMP=1C, INC=1.03V
					18 GHZ	244.7	230.0	308.4	284.9			
24	3	2	14	56	65	257.2	223.4	303.8	286.3			APPROXIMATE TIME FILE 3
					5 GHZ	275.3	238.2	311.3	284.0			TEMP=3C, INC=1.21V
					10 GHZ	258.0	236.4	300.6	286.8			ORIGINALLY RECORD NO 2
					18 GHZ	243.3	224.4	308.4	284.9			
25	3	2	15	10	70	250.9	216.8	304.6	286.4			TEMP=4C, INC=1.41V
					5 GHZ	248.0	205.9	311.5	284.3			ORIGINALLY RECORD NO 3, FILE 3.
					10 GHZ	246.5	217.2	300.6	286.9			
					18 GHZ	234.9	214.6	308.5	284.9			
26	3	2	15	17	75	240.2	204.5	304.7	286.5			ANTENNAS CANNOT FOCUS ON SAME SPOT
					5 GHZ	241.3	209.3	311.6	284.4			AT THIS ANGLE. SLIGHTLY FURTHER OUT
					10 GHZ	241.7	214.2	300.4	286.5			SNOW SEEMS THE SAME.
					18 GHZ	221.1	197.5	308.4	284.8			INC=-1.54V
27	3	2	15	30	80	209.3	172.1	304.9	286.5			ANTENNA CAN NOT FOCUS ON SAME SPOT
					5 GHZ	205.8	179.6	311.6	284.5			FURTHER WITHOUT SOME SNOW.
					10 GHZ	220.5	206.9	300.4	286.5			WAS FILE 5, REC #5
					18 GHZ	208.2	186.7	308.4	284.8			TEMP=2C, INC=1.72V

END OF RUN.

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
1,	3	6	14	20	0	189.6	194.1	298.5	286.9	SPOT SCAN OF ALUMINUM PLATE 8X8 FT 12.5 CM OF SNOW, PARTLY CLOUDY SKY (SOME SUN) SPOT SCAN. INC=-1.17V TEMP=-1C. BOOM AT 20, TAPE NASA1
					5 GHZ	252.1	253.3	308.3	285.1	
					10 GHZ	271.3	277.1	297.4	283.3	
					37 GHZ	264.5	263.8	304.0	286.4	
2,	3	6	14	30	0	194.5	189.0	300.2	287.0	SAME AS ABOVE ONLY ANTENNA MOVE THAT 18 AND 37 GHZ ARE ABOVE SPOT ON PLATE. INC=-1.17V, TEMP=-1C. (SPOT SCAN - 18 & 37 GHZ)
					5 GHZ	255.5	254.4	309.9	285.3	
					10 GHZ	273.2	278.1	298.7	283.4	
					37 GHZ	265.2	264.7	305.8	286.6	
3,	3	6	14	36	0	196.0	199.7	301.1	287.1	SAME EXCEPT NOW X BAND ANTENNAS ARE OVER SPOT ON PLATE. SNOW STILL 12.5 CM DEEP. TEMP=-1C. INC = -1.15V.
					5 GHZ	261.5	261.8	310.7	285.4	
					10 GHZ	259.9	266.0	299.5	283.5	
					37 GHZ	259.6	257.1	306.7	286.7	
4,	3	6	14	45	10	180.5	179.8	302.2	287.1	SAME AS PREVIOUS EXCEPT ANT ARE AT 10 DEG INSTEAD OF NADIR. C BAND. TEMP=-1C INC=-.8V (SPOT SCAN - 5 GHZ)
					5 GHZ	247.2	247.3	311.6	285.6	
					10 GHZ	268.0	273.7	300.4	283.7	
					37 GHZ	263.1	261.7	307.9	286.7	
5,	3	6	14	57	10	208.0	177.4	303.4	287.1	SAME EXCEPT 18-37 GHZ (SPOT SCAN) INC = -.8V
					5 GHZ	238.5	237.6	312.5	285.6	
					10 GHZ	266.0	271.6	301.5	284.1	
					37 GHZ	258.7	255.3	309.2	286.7	
6,	3	6	15	6	10	182.1	171.0	304.0	287.1	SAME AS ABOVE ONLY X BAND TEMP=0C. INC = -.8V (SPOT SCAN - 10 GHZ)
					5 GHZ	239.9	240.4	312.9	285.6	
					10 GHZ	268.9	272.9	302.1	284.5	
					37 GHZ	254.8	253.1	309.8	286.7	
7,	3	6	15	16	20	174.4	164.4	303.5	287.0	SAME EXCEPT ANT ANGLE IS NOW 20 DEG SNOW ON 8X8 PLATE STILL 12.5 CM TEMP=.5C, INC=-.46V (SPOT SCAN, CBAND FOR 5 GHZ)
					5 GHZ	256.6	255.9	311.7	285.5	
					10 GHZ	265.1	265.9	302.1	286.5	
					37 GHZ	264.5	261.1	309.2	286.4	
8,	3	6	15	22	20	186.2	172.2	303.7	286.9	SAME - FRASER, INC=-.46V (SPOT SCAN - 18 & 37 GHZ)
					5 GHZ	241.1	232.0	311.7	285.4	
					10 GHZ	267.2	268.2	302.3	286.8	
					37 GHZ	260.9	257.6	309.3	286.3	
9,	3	6	15	34	20	161.0	141.2	304.0	286.7	SAME - INC=-.46V, TEMP=1C (10 GHZ)
					5 GHZ	247.8	242.9	311.7	285.2	
					10 GHZ	260.5	260.4	302.7	287.3	
					37 GHZ	247.3	248.9	309.6	286.0	
11,	3	6	15	50	30	164.5	154.4	304.2	286.4	10 EXTRA PORTION BETWEEN 9&11. SPOT SCAN OF METAL PLATE. 12.5 CM OF SNOW ON TOP OF PLATE STILL. SNOW FALLING, INC=-.09V, (5 GHZ)
					5 GHZ	257.1	250.5	311.6	284.9	
					10 GHZ	269.1	268.5	303.1	287.6	
					37 GHZ	263.3	260.3	309.8	285.6	

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REC # 12,	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	203.3	159.5	304.3	286.3	SAME AS BEFORE
DAY = 6	10 GHZ	256.3	238.3	311.6	284.7	(SPOT SCAN - 18&37 GHZ)
HR = 15	18 GHZ	267.1	270.3	303.1	287.5	INC=-.09V, TEMP=-1C.
MIN = 55	37 GHZ	262.4	258.4	309.8	285.5	
REC # 13,	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	165.5	153.9	304.3	286.1	SAME - XBAND
DAY = 6	10 GHZ	243.9	234.8	311.5	284.5	(SPOT SCAN - 10 GHZ)
HR = 16	18 GHZ	265.4	261.5	303.2	287.4	
MIN = 3	37 GHZ	257.6	257.0	309.8	285.2	
REC # 14,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	168.2	157.9	304.2	285.3	ANT. MOVED TO 40 DEG
DAY = 6	10 GHZ	251.1	234.9	311.2	283.6	SPOT SCAN (5 GHZ) OF PLATE
HR = 16	18 GHZ	266.8	269.2	303.0	286.1	TEMP=-1C
MIN = 14	37 GHZ	264.1	262.3	309.4	284.4	
REC # 15,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	184.9	150.1	304.2	285.1	SAME
DAY = 6	10 GHZ	258.7	239.4	311.2	283.4	ANT. HANGING FREE
HR = 16	18 GHZ	264.3	264.9	303.0	285.8	(18&37 GHZ)
MIN = 25	37 GHZ	263.5	261.1	309.3	284.1	
REC # 16,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	168.2	162.5	304.2	285.0	SAME, X-BAND
DAY = 6	10 GHZ	243.6	232.8	311.2	283.3	SNOW 12.5 CM DEEP STILL ON PLATE
HR = 16	18 GHZ	263.2	262.3	303.0	285.8	(10 GHZ)
MIN = 32	37 GHZ	258.1	255.5	309.3	284.1	
END OF RUN.						

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
1	3	7	9	44	20	32.5	20.1	294.0	274.1	SPOT SCAN OF METAL PLATE WITH 2 CM POWDER & HARD CRUST UNDERNEATH. TOTAL DEPTH=12.7 CM. TEMP=-2C. ANT MOVED ONE/TIME OVER SPOT. INC=-.54V
					5 GHZ	34.8	32.7	297.4	276.1	
					10 GHZ	52.8	55.6	309.1	275.1	
					18 GHZ	74.2	74.1	290.7	277.8	
					37 GHZ	120.0	113.4	295.8	274.2	
2	3	7	10	2	20	34.8	32.7	297.4	276.1	FRASER. DISTURBED SNOW ABOVE PLATE WITH RAKES. TEMP=-2C, INC=-.54V THE FIRST 3 RECORDS A,B,C LISTED MIKES EXPERIMENT RENUMBERED 1,2,3.
					5 GHZ	52.8	55.6	309.1	275.1	
					10 GHZ	74.2	74.1	290.7	277.8	
					18 GHZ	104.8	112.3	299.5	276.1	
					37 GHZ					
3	3	7	10	12	20	22.3	24.0	299.0	277.2	SNOW COMPACTED WITH SNOW SHOES ABOVE PLATE. NEW DEPTH=10 CM. TEMP=-2C, INC=-.54V NEXT REC IS NUMBERED 1.
					5 GHZ	31.9	35.3	310.7	276.1	
					10 GHZ	62.0	63.2	292.4	278.8	
					18 GHZ	95.8	104.0	301.3	277.3	
					37 GHZ					
1	3	7	10	23	20	0.0	0.0	300.5	278.5	CAL OF ANT RESPONSE WITH ECCOSORB ECCOSORB ON X BAND (NO 5,18,37 GHZ DATA) FROM 2C OUTSIDE TO -1C INSIDE
					5 GHZ	270.3	270.8	312.1	277.2	
					10 GHZ	0.0	0.0	294.2	279.9	
					18 GHZ	0.0	0.0	303.2	278.6	
					37 GHZ					
2	3	7	10	30	20	237.7	330.7	301.4	279.3	ECCOSORB ON VERT 5 GHZ PROBLEM WITH THIS CHANNEL (5) (NO 10,18,37 GHZ DATA)
					5 GHZ	0.0	0.0	312.9	277.8	
					10 GHZ	0.0	0.0	295.4	280.5	
					18 GHZ	0.0	0.0	304.3	279.4	
					37 GHZ					
3	3	7	10	36	20	331.9	276.2	302.0	280.0	ECCOSORB ON HORZ 5 GHZ (NO 10,18,37 GHZ DATA)
					5 GHZ	0.0	0.0	313.4	278.4	
					10 GHZ	0.0	0.0	296.4	280.9	
					18 GHZ	0.0	0.0	305.1	280.1	
					37 GHZ					
4	3	7	10	45	20	0.0	0.0	302.9	281.1	ECCOSORB ON 18 & 37 GHZ (NO 5,10 GHZ DATA)
					5 GHZ	0.0	0.0	313.9	279.2	
					10 GHZ	292.2	294.7	297.9	281.6	
					18 GHZ	269.8	268.2	306.3	281.3	
					37 GHZ					
5	3	7	11	42	0	237.3	241.0	304.5	288.6	PIT WITH ALL SNOW REMOVED. LOOKING AT GROUND. INC=-1.17V, TEMP=-1C
					5 GHZ	302.4	295.3	311.6	284.4	
					10 GHZ	234.3	241.5	306.9	283.2	
					18 GHZ	255.9	253.0	310.5	289.3	
					37 GHZ					
6	3	7	11	52	20	226.2	230.3	304.8	289.3	PIT WITH ALL SNOW REMOVED. LOOKING AT BARE GROUND. TEMP=-1C INC=-.55V
					5 GHZ	316.3	271.1	311.6	285.0	
					10 GHZ	238.7	242.8	307.3	284.2	
					18 GHZ	257.6	254.7	310.9	289.9	
					37 GHZ					
8	3	7	12	4	-20	234.7	235.8	305.0	289.8	RECORD 7 IS JUNK PIT WITH 3/4 INCHES SNOW ON BOTTOM TEMP=-1C. INC=-.56V
					5 GHZ	270.5	266.7	311.5	285.7	
					10 GHZ	244.7	248.1	307.6	285.5	
					18 GHZ	258.8	257.3	311.2	290.4	
					37 GHZ					

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
9	3	7	12	10	0	245.1	247.8	305.1	290.1	PIT WITH 3/4 INS. SNOW ON BOTTOM
					5 GHZ	303.2	300.9	311.5	286.0	AIR TEMP -1C, INC= -1.17V
					10 GHZ	269.0	274.0	307.6	286.2	
					18 GHZ	261.8	261.4	311.2	290.6	
10	3	7	12	20	0	252.9	252.1	305.1	290.0	PIT WITH 1.5 INCHES SNOW ON BOTTOM
					5 GHZ	297.4	302.0	311.3	286.5	AIR TEMP IS -1C
					10 GHZ	272.8	277.9	306.1	288.9	INC=-1.17V
					18 GHZ	257.0	256.7	310.7	290.2	
11	3	7	12	28	20	251.3	241.6	305.2	290.2	PIT WITH 1.5 INCHES SNOW
					5 GHZ	302.4	292.0	311.2	286.8	TEMP=-2C, INC= -.54V
					10 GHZ	274.5	277.9	306.0	289.8	
					18 GHZ	257.8	250.5	310.7	290.3	
12	3	7	12	42	20	254.8	245.6	305.3	290.4	PIT WITH 2 INCHES SNOW
					5 GHZ	304.8	303.4	311.2	287.3	AIR TEMP = -1C
					10 GHZ	275.4	279.3	305.8	290.9	INC= -.54V
					18 GHZ	259.6	260.5	310.7	290.4	
13	3	7	12	50	0	256.5	253.6	305.4	290.5	PIT WITH 2 INCHES SNOW
					5 GHZ	302.3	338.5	311.1	287.4	AIR TEMP=-1C
					10 GHZ	276.9	279.1	305.7	291.4	INC= -1.17V
					18 GHZ	260.0	259.5	310.7	290.5	
14	3	7	13	1	0	259.6	256.5	305.5	290.5	PIT WITH 2.5 INCHES SNOW
					5 GHZ	326.9	338.0	311.1	287.6	AIR TEMP= 0C, INC= -1.17V
					10 GHZ	275.3	281.2	305.7	291.8	
					18 GHZ	254.0	252.4	310.7	290.5	
15	3	7	13	10	20	258.2	250.8	305.6	290.4	PIT WITH 2.5 INCHES SNOW
					5 GHZ	302.9	310.8	311.1	287.7	TEMP=1C, INC= -.54V
					10 GHZ	276.0	281.0	305.7	291.6	
					18 GHZ	258.9	260.5	310.7	290.5	
16	3	7	13	24	20	257.9	253.8	305.7	290.4	PIT WITH 3.5 INCHES SNOW
					5 GHZ	289.1	298.7	311.1	287.7	TEMP=1C, INC= -.54V
					10 GHZ	277.4	280.8	305.7	291.6	
					18 GHZ	256.5	258.1	310.7	290.5	
17	3	7	13	31	0	261.1	257.4	305.8	290.4	PIT WITH 3.5 INCHES SNOW
					5 GHZ	306.9	284.0	311.1	287.7	TEMP=-1C, INC= -1.17V
					10 GHZ	277.3	280.6	305.8	291.6	
					18 GHZ	254.5	253.3	310.7	290.4	
18	3	7	13	40	0	259.6	257.2	305.8	290.4	PIT WITH 4 INCHES SNOW
					5 GHZ	298.1	294.7	311.1	287.7	TEMP=-1C, INC= -1.17V
					10 GHZ	275.7	279.9	305.9	291.6	
					18 GHZ	247.0	245.7	310.7	290.3	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
19	3	7	13	50	20	258.9	251.1	305.9	290.4	PIT WITH 4 SNOW
					5 GHZ	306.9	305.1	311.1	287.6	TEMP=-.5C, INC= -.54V
					10 GHZ	276.2	279.5	306.0	291.4	
					18 GHZ	253.8	253.0	310.7	290.2	
20	3	7	14	2	20	259.6	252.8	305.8	290.3	PIT WITH 4.5 SNOW, TEMP=0C, INC=-.54V
					5 GHZ	304.7	310.8	311.1	287.2	
					10 GHZ	275.9	279.8	306.6	290.5	
					18 GHZ	251.7	251.9	310.7	289.6	
21	3	7	14	10	0	260.9	256.7	305.8	290.2	PIT WITH 4.5 SNOW, TEMP=0C
					5 GHZ	292.2	290.2	311.1	287.1	INC=-1.17V
					10 GHZ	275.3	280.6	306.8	290.3	
					18 GHZ	251.6	250.8	310.7	289.4	
22	3	7	14	20	0	258.2	254.9	305.8	290.2	PIT WITH 5.0 SNOW, TEMP=0C
					5 GHZ	262.4	264.1	311.1	287.0	INC=-1.17V
					10 GHZ	275.4	280.2	306.9	290.2	
					18 GHZ	242.1	237.6	310.7	289.3	
23	3	7	14	29	20	255.1	249.0	305.8	290.2	PIT WITH 5.0 SNOW
					5 GHZ	263.4	262.8	311.1	286.9	TEMP=.5C, INC= -.54V
					10 GHZ	250.4	257.2	307.0	290.2	
					18 GHZ	237.1	232.1	310.7	289.3	
24	3	7	14	40	20	260.7	253.1	305.8	290.2	PIT WITH 5.5 SNOW
					5 GHZ	263.4	263.7	311.2	286.9	TEMP=.5C, INC= -.54V
					10 GHZ	250.7	259.0	307.1	290.2	
					18 GHZ	249.5	249.0	310.6	289.3	
25	3	7	14	50	0	261.1	256.6	305.8	290.2	PIT WITH 5.5 SNOW
					5 GHZ	264.9	265.8	311.3	286.9	TEMP=.5C, INC= -1.17V
					10 GHZ	256.1	259.7	307.2	290.3	
					18 GHZ	248.1	245.8	310.6	289.3	
26	3	7	15	0	0	258.9	255.0	305.8	290.2	PIT WITH 6 INCHES SNOW
					5 GHZ	264.6	265.0	311.3	287.0	TEMP=0C, INC= -1.17V
					10 GHZ	251.9	257.0	307.2	290.5	
					18 GHZ	240.9	238.7	310.5	289.5	
27	3	7	15	7	20	259.0	251.4	305.8	290.3	PIT WITH 6 INCHES SNOW
					5 GHZ	263.1	263.5	311.6	287.4	TEMP=-.5C, INC= -.54V
					10 GHZ	251.4	258.7	307.0	291.4	
					18 GHZ	249.6	249.1	310.3	290.1	
28	3	7	15	17	20	260.9	252.9	305.8	290.3	PIT WITH 6.5 INCHES SNOW
					5 GHZ	264.2	264.1	311.6	287.4	TEMP=-.5C, INC= -.54V
					10 GHZ	254.2	259.9	307.0	291.6	
					18 GHZ	250.1	248.1	310.3	290.2	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
29	3	7	15	25	0	260.0	255.7	305.8	290.2	PIT WITH 6.5 INCHES SNOW TEMP=0C, INC= -1.17V
					5 GHZ	265.2	266.5	311.6	287.4	
					10 GHZ	256.8	262.8	307.0	291.6	
					37 GHZ	244.7	244.9	310.2	290.2	
30	3	7	15	38	0	255.5	251.6	305.8	290.1	PIT WITH 7 INCHES SNOW TEMP=-.5C, INC = -1.17V
					5 GHZ	264.8	266.1	311.6	287.3	
					10 GHZ	251.6	258.3	307.1	291.6	
					37 GHZ	234.7	232.8	310.2	290.1	
31	3	7	15	43	20	255.1	245.5	305.8	290.0	PIT WITH 7 INCHES SNOW TEMP=-1C, INC= -.54V
					5 GHZ	265.2	263.7	311.6	287.2	
					10 GHZ	245.0	250.9	307.1	291.6	
					37 GHZ	237.2	230.6	310.2	290.1	
32	3	7	15	51	20	258.4	251.4	305.8	289.9	PIT WITH 7.5 INCHES SNOW TEMP=-1C, INC= -.54V
					5 GHZ	264.8	263.8	311.6	287.1	
					10 GHZ	251.2	252.6	307.2	291.5	
					37 GHZ	243.9	242.1	310.1	289.9	
33	3	7	16	0	0	256.7	252.4	305.8	289.7	PIT WITH 7.5 INCHES SNOW TEMP=-1C, INC= -1.17V
					5 GHZ	264.8	265.6	311.5	286.9	
					10 GHZ	254.7	258.2	307.2	291.3	
					37 GHZ	240.3	238.5	310.1	289.7	
34	3	7	16	10	0	248.6	243.6	305.8	289.0	PIT WITH 8 INCHES SNOW TEMP=-1C, INC= -1.17V
					5 GHZ	263.7	264.6	311.2	286.3	
					10 GHZ	255.5	257.0	307.4	290.4	
					37 GHZ	225.8	222.7	310.2	288.8	
36	3	7	16	20	20	247.9	239.5	305.8	288.9	RECORD 35 IS GARBAGE 8 INCH DEEP SNOW TEMP=-1C, INC= -.54V
					5 GHZ	264.0	264.3	311.2	286.2	
					10 GHZ	254.3	257.6	307.5	290.2	
					37 GHZ	240.1	238.5	310.2	288.7	
37	3	7	16	32	140	-21.5	-20.7	305.8	288.8	CLEAR SKY, LOOKING SOUTHWEST AIR TEMP = -1C INC= 2.29V SKY CAL
					5 GHZ	4.3	6.5	311.1	286.1	
					10 GHZ	24.2	24.4	307.5	290.2	
					37 GHZ	18.6	28.5	310.2	288.6	

END OF RUN.

1978 SMHR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 3/ 8/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	LOCATION - FRAZER
1,	3				0	254.4	252.8	289.8	264.8	SNOW PIT DEPTH 8 INCHES
		8			5 GHZ	263.7	280.0	305.7	264.3	INC=-1.17V AIR TEMP=-8C
		9			10 GHZ	277.6	282.9	283.1	268.0	
		30			18 GHZ	238.3	233.4	292.0	268.0	
					37 GHZ					
2,	3				20	256.4	253.0	293.7	266.6	SNOW PIT
		8			5 GHZ	518.1	465.7	310.7	267.5	SNOW DEPTH 8 INCHES
		9			10 GHZ	278.4	280.9	286.0	269.2	INC=-.59V AIR TEMP=-7C
		43			18 GHZ	245.0	242.8	295.7	269.6	
					37 GHZ					
4,	3				20	249.5	245.7	295.7	268.2	RECORD 3 HAD 2 BAD WRITES
		8			5 GHZ	515.3	454.5	311.8	268.4	PIT WITH SNOW 8.5 IN. DEEP
		9			10 GHZ	275.5	278.3	287.4	271.6	INC=-.59V AIR TEMP=-8C
		52			18 GHZ	244.0	241.5	297.8	270.9	
					37 GHZ					
5,	3				0	248.5	246.8	297.4	270.4	PIT WITH SNOW 8.5 IN. DEEP
		8			5 GHZ	296.4	314.1	311.1	268.5	INC=-1.17V, AIR TEMP=-6C
		10			10 GHZ	272.5	280.5	288.5	274.3	
		2			18 GHZ	239.4	237.6	299.8	272.5	
					37 GHZ					
6,	3				0	254.1	255.9	299.2	272.9	PIT WITH 9 IN. SNOW
		8			5 GHZ	354.7	333.8	311.1	270.1	INC=-1.18V, AIR TEMP=-4C
		10			10 GHZ	273.4	278.3	290.3	277.1	
		14			18 GHZ	231.8	227.6	302.0	274.3	
					37 GHZ					
7,	3				20	251.6	250.3	299.9	274.5	PIT WITH 9 IN. SNOW
		8			5 GHZ	404.3	446.9	311.1	272.6	INC=-.59V AIR TEMP=-4C
		10			10 GHZ	274.3	276.5	292.0	278.3	
		21			18 GHZ	242.7	239.9	302.0	275.5	
					37 GHZ					
8,	3				20	252.1	250.5	301.3	276.7	PIT WITH 9.5 IN. SNOW
		8			5 GHZ	491.0	492.6	311.1	274.8	INC=-.59V, AIR TEMP=-3C
		10			10 GHZ	271.2	274.1	293.9	280.5	
		33			18 GHZ	241.7	239.0	304.7	277.3	
					37 GHZ					
9,	3				0	253.6	254.4	302.2	278.3	PIT WITH 9.5 IN. SNOW
		8			5 GHZ	450.9	432.0	311.2	276.3	INC=-1.18V, AIR TEMP=-4.5C
		10			10 GHZ	272.2	274.9	295.3	282.1	
		42			18 GHZ	235.1	233.2	305.9	278.6	
					37 GHZ					
10,	3				0	251.9	253.4	303.0	280.0	PIT WITH 10 IN. SNOW
		8			5 GHZ	493.5	351.3	311.2	277.9	AIR TEMP=-3.5C
		10			10 GHZ	270.8	274.6	296.7	283.7	
		52			18 GHZ	228.8	227.8	307.0	280.1	
					37 GHZ					
11,	3				20	253.7	250.6	303.4	281.0	PIT WITH 10 IN. SNOW
		8			5 GHZ	251.5	250.3	311.3	278.9	INC=-.58V, AIR TEMP=-1C
		10			10 GHZ	264.8	268.3	297.6	284.7	
		59			18 GHZ	238.7	235.5	307.8	281.0	
					37 GHZ					

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REC # 12,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	255.4	251.9	303.8	283.0	
DAY = 8	10 GHZ	256.2	255.1	311.5	280.8	
HR = 11	18 GHZ	280.0	282.2	299.4	286.5	
MIN = 15	37 GHZ	242.7	239.9	309.2	283.1	
						PIT WITH 11 IN. SNOW INC=-.58V, AIR TEMP=-1C
REC # 13,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	256.6	257.6	304.4	284.5	
DAY = 8	10 GHZ	257.1	257.4	311.6	282.1	
HR = 11	18 GHZ	279.2	283.6	300.7	287.9	
MIN = 26	37 GHZ	240.8	239.2	310.0	284.5	
						PIT WITH 11 IN. SNOW INC=-1.17V, AIR TEMP=-1C
REC # 14,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	254.3	255.5	305.1	286.6	
DAY = 8	10 GHZ	258.0	258.2	311.7	284.1	
HR = 11	18 GHZ	276.9	282.3	302.6	289.9	
MIN = 43	37 GHZ	230.9	227.7	310.8	286.5	
						PIT WITH 12 IN. SNOW INC=-1.17V, AIR TEMP=+1.5C
REC # 15,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	255.5	252.0	305.6	288.2	
DAY = 8	10 GHZ	256.9	255.3	311.7	285.5	
HR = 11	18 GHZ	280.1	283.8	304.0	291.5	
MIN = 57	37 GHZ	248.7	246.2	311.2	288.1	
						PIT WITH 12 IN. SNOW INC=-.58V, AIR TEMP=-1C
REC # 16,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	257.9	253.8	305.9	289.2	
DAY = 8	10 GHZ	259.9	257.9	311.6	286.3	
HR = 12	18 GHZ	280.8	282.2	305.0	292.7	
MIN = 6	37 GHZ	255.4	252.0	310.8	289.1	
						PIT WITH 13 IN. SNOW INC=-.58V, AIR TEMP=-1C
REC # 17,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	256.9	258.3	306.2	290.0	
DAY = 8	10 GHZ	260.3	260.6	311.6	286.9	
HR = 12	18 GHZ	283.6	287.3	305.7	293.4	
MIN = 13	37 GHZ	255.1	252.0	310.9	289.8	
						PIT WITH 13 IN. SNOW INC=-1.17V, AIR TEMP=+4C
REC # 18,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	254.8	255.0	306.5	291.2	
DAY = 8	10 GHZ	263.7	264.1	311.6	288.1	
HR = 12	18 GHZ	282.6	288.0	306.7	294.5	
MIN = 26	37 GHZ	243.5	241.6	311.1	291.0	
						PIT WITH 14 IN. SNOW INC=-1.17V, AIR TEMP=+3.5C
REC # 19,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	254.3	248.9	306.7	292.1	
DAY = 8	10 GHZ	262.5	261.0	311.6	288.8	
HR = 12	18 GHZ	282.6	284.0	307.4	295.1	
MIN = 35	37 GHZ	254.3	253.1	311.2	291.8	
						PIT WITH 14 IN. SNOW
REC # 20,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	258.8	255.4	307.0	293.2	
DAY = 8	10 GHZ	262.5	261.4	311.6	289.8	
HR = 12	18 GHZ	257.1	255.0	308.3	295.8	
MIN = 48	37 GHZ	258.5	255.6	311.4	292.9	
						PIT WITH 15 IN. SNOW INC=-.60V, AIR TEMP=0C
REC # 21,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	259.8	258.8	307.2	294.2	
DAY = 8	10 GHZ	264.3	265.6	311.6	290.6	
HR = 13	18 GHZ	253.7	260.8	309.0	296.3	
MIN = 0	37 GHZ	255.9	255.1	311.5	293.8	
						PIT WITH 15 IN. SNOW INC=-1.17V, AIR TEMP=+.5C

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REC # 22,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	PIT WITH 16 IN. SNOW INC=-1.17V, AIR TEMP=+5C
MON = 3	5 GHZ	251.4	250.4	307.4	295.3	
DAY = 8	10 GHZ	265.3	266.2	311.6	291.5	
HR = 13	18 GHZ	253.1	260.1	309.7	296.6	
MIN = 15	37 GHZ	243.6	241.7	311.7	294.8	
REC # 23,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	PIT WITH 16 IN. SNOW INC=-.6V, AIR TEMP=+9C NEW NITROGEN AT THIS POINT
MON = 3	5 GHZ	248.5	242.7	307.5	295.7	
DAY = 8	10 GHZ	263.8	263.7	311.6	291.9	
HR = 13	18 GHZ	252.5	254.5	309.9	296.7	
MIN = 22	37 GHZ	247.7	243.0	311.7	295.2	
REC # 24,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	PIT WITH 17 IN. SNOW INC=-.59V, AIR TEMP=+7C
MON = 3	5 GHZ	262.7	256.0	307.3	297.8	
DAY = 8	10 GHZ	262.3	261.2	311.6	293.6	
HR = 13	18 GHZ	256.2	257.3	310.3	294.4	
MIN = 56	37 GHZ	267.0	267.5	312.0	296.9	
REC # 25,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	PIT WITH 17 IN. SNOW INC=-1.17V, AIR TEMP=+6C
MON = 3	5 GHZ	265.1	263.7	307.4	298.3	
DAY = 8	10 GHZ	267.2	267.6	311.6	294.0	
HR = 14	18 GHZ	251.9	257.4	310.5	294.7	
MIN = 10	37 GHZ	268.8	270.4	312.1	297.3	
REC # 26,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	PIT WITH 18 IN. SNOW INC=-1.17V, AIR TEMP= 4C
MON = 3	5 GHZ	269.1	267.9	307.5	298.4	
DAY = 8	10 GHZ	266.2	266.6	311.6	294.2	
HR = 14	18 GHZ	250.7	256.5	310.7	295.0	
MIN = 20	37 GHZ	260.2	261.8	312.1	297.5	
REC # 27,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	PIT WITH 18 IN. SNOW INC=-.59V, AIR TEMP= 5C
MON = 3	5 GHZ	268.4	264.2	307.6	298.6	
DAY = 8	10 GHZ	263.5	262.0	311.6	294.4	
HR = 14	18 GHZ	251.0	253.7	310.8	295.5	
MIN = 32	37 GHZ	267.2	267.0	312.1	297.7	
REC # 28,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	PIT WITH 19 IN. SNOW INC=-.59V, AIR TEMP= 5C
MON = 3	5 GHZ	267.3	263.1	307.8	298.3	
DAY = 8	10 GHZ	263.5	261.5	311.6	294.3	
HR = 14	18 GHZ	250.4	253.7	310.7	296.8	
MIN = 51	37 GHZ	267.1	265.8	312.1	297.6	
REC # 29,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	PIT WITH 19 IN. SNOW INC=-1.18V, AIR TEMP= 5C
MON = 3	5 GHZ	268.3	266.4	307.9	298.2	
DAY = 8	10 GHZ	266.9	265.9	311.6	294.3	
HR = 15	18 GHZ	252.5	254.8	310.7	297.2	
MIN = 0	37 GHZ	261.1	260.4	312.1	297.6	
REC # 30,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	PIT WITH 20 IN. SNOW INC=-1.18V, AIR TEMP= 4C
MON = 3	5 GHZ	268.6	266.1	308.0	298.1	
DAY = 8	10 GHZ	266.8	267.2	311.6	294.2	
HR = 15	18 GHZ	252.1	257.3	310.7	297.7	
MIN = 16	37 GHZ	264.3	267.3	312.1	297.5	
REC # 31,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	PIT WITH 20 IN. SNOW INC=-.59V, AIR TEMP= 4C
MON = 3	5 GHZ	267.0	263.8	308.0	298.0	
DAY = 8	10 GHZ	265.4	264.3	311.6	294.1	
HR = 15	18 GHZ	251.2	252.6	310.7	297.9	
MIN = 26	37 GHZ	263.5	263.2	312.1	297.4	

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REC # 32,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	267.2	264.0	308.0	297.8	
DAY = 8	10 GHZ	266.0	264.9	311.6	293.9	
HR = 15	18 GHZ	251.5	256.1	310.7	298.0	
MIN = 42	37 GHZ	261.7	262.9	312.1	297.2	
						PIT WITH 21 IN. SNOW
						INC=-.59V, AIR TEMP= 4.5C
REC # 33,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	269.8	267.7	307.9	297.4	
DAY = 8	10 GHZ	266.8	267.2	311.6	293.5	
HR = 15	18 GHZ	254.3	257.4	310.7	297.6	
MIN = 52	37 GHZ	258.2	257.9	312.1	296.8	
						PIT WITH 21 IN. SNOW
						INC=-1.18V, AIR TEMP= 4C
REC # 34,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	267.6	265.6	307.9	297.3	
DAY = 8	10 GHZ	266.9	267.3	311.6	293.4	
HR = 16	18 GHZ	251.2	257.1	310.7	297.6	
MIN = 5	37 GHZ	244.8	244.6	312.1	296.8	
						PIT WITH 22 IN. SNOW
						INC=-1.19V, AIR TEMP= 3C
REC # 35,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	268.9	264.1	307.9	297.3	
DAY = 8	10 GHZ	266.3	265.3	311.6	293.4	
HR = 16	18 GHZ	251.3	257.6	310.7	297.6	
MIN = 15	37 GHZ	253.8	253.9	312.1	296.7	
						PIT WITH 22 IN. SNOW
						INC=-.59V, AIR TEMP= 3C
REC # 36,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	268.9	264.8	307.9	297.3	
DAY = 8	10 GHZ	266.0	265.4	311.6	293.4	
HR = 16	18 GHZ	249.4	254.8	310.7	297.6	
MIN = 29	37 GHZ	251.2	250.7	312.1	296.7	
						PIT WITH 23 IN. SNOW
						AIR TEMP= 3C
REC # 37,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	269.0	266.4	307.9	297.3	
DAY = 8	10 GHZ	266.3	267.2	311.6	293.4	
HR = 16	18 GHZ	249.6	256.1	310.7	297.6	
MIN = 37	37 GHZ	251.3	253.9	312.1	296.7	
						PIT WITH 23 IN. SNOW
REC # 38,	INCLIN = 140	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	-0.2	-0.3	307.9	297.3	
DAY = 8	10 GHZ	-0.1	1.0	311.6	293.4	
HR = 16	18 GHZ	12.4	17.6	310.7	297.6	
MIN = 46	37 GHZ	11.9	22.0	312.1	296.7	
						SKY
						INC=+2.1 V LOOKING SOUTH WEST
END OF RUN.						

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
1	3	9	9	12	0	253.1	254.2	286.8	259.7	PIT WITH 23 IN. SNOW
					5 GHZ	247.8	249.4	301.1	258.9	INC=-1.17V AIR TEMP=-15C
					10 GHZ	170.3	219.0	274.9	257.7	18 GHZ NOT WORKING YET
					37 GHZ	227.5	227.1	284.8	259.3	REC(A) FRASER
2	3	9	9	17	20	248.1	247.5	288.1	260.1	REC(B)
					5 GHZ	241.1	239.1	302.2	259.4	PIT WITH 23 IN. SNOW
					10 GHZ	282.0	286.2	276.0	258.7	INC=-.59V AIR TEMP=-15C
					37 GHZ	229.7	226.9	286.4	259.7	
3	3	9	9	30	20	250.7	249.8	291.1	261.3	REC(C)
					5 GHZ	240.8	238.0	304.8	260.8	PIT WITH 24 IN. SNOW
					10 GHZ	279.1	286.2	278.7	261.4	INC=-.59V AIR TEMP=-15C
					37 GHZ	227.8	225.7	290.0	261.0	
4	3	9	9	40	0	249.0	250.0	293.1	262.4	REC(D)
					5 GHZ	245.8	246.0	306.5	262.0	24 IN. SNOW
					10 GHZ	276.5	280.8	280.6	263.4	INC=-.59V AIR TEMP=-10C
					37 GHZ	218.9	216.2	292.4	262.1	
5	3	9	9	47	0	248.2	249.2	294.4	263.2	REC(E)
					5 GHZ	246.0	246.7	307.6	262.9	25 IN. SNOW
					10 GHZ	278.9	282.2	281.9	264.8	
					37 GHZ	215.1	212.6	294.0	262.9	
6	3	9	9	51	20	250.0	247.1	295.1	263.7	REC(F)
					5 GHZ	246.0	244.0	308.1	263.4	25 IN. SNOW
					10 GHZ	277.8	278.8	282.6	265.6	
					37 GHZ	223.2	220.8	294.8	263.4	
7	3	9	10	0	20	248.9	245.7	296.5	264.9	REC(G)
					5 GHZ	246.7	244.7	309.1	264.6	26 IN. SNOW
					10 GHZ	273.5	275.9	284.0	267.4	INC=-.58V AIR TEMP=-9C
					37 GHZ	224.1	221.3	296.6	264.7	
8	3	9	10	6	0	250.7	247.9	297.3	265.8	REC(H)
					5 GHZ	247.9	249.4	309.7	265.4	26 IN. SNOW
					10 GHZ	276.6	277.1	284.9	268.6	INC=-1.17V AIR TEMP=-8C
					37 GHZ	215.8	211.9	297.6	265.5	
9	3	9	10	15	0	246.7	249.2	298.4	267.2	REC(I)
					5 GHZ	249.1	250.2	310.4	266.8	27 IN. SNOW
					10 GHZ	270.1	275.5	286.1	270.3	INC=-1.16V TEMP=-5C
					37 GHZ	214.2	210.5	298.9	266.9	
10	3	9	10	24	20	251.1	250.1	299.3	268.7	REC(J)
					5 GHZ	243.6	242.7	310.9	268.1	27 IN. SNOW
					10 GHZ	273.5	275.3	287.2	272.1	INC=-.58V
					37 GHZ	223.9	219.6	300.1	268.3	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 11,	3	9	10	30	20	246.3	244.8	299.8	269.8	REC(K) 28 IN. SNOW
					5 GHZ	245.5	241.6	311.1	269.1	INC=-.58V
					10 GHZ	270.1	273.9	287.9	273.3	
					37 GHZ	227.0	217.1	300.7	269.4	
REC # 12,	3	9	10	33	0	253.2	252.4	300.0	270.3	REC(L) 28 IN. SNOW
					5 GHZ	250.9	250.3	311.1	269.6	INC=-1.18V
					10 GHZ	269.8	276.6	288.2	273.8	TEMP=-5C
					37 GHZ	215.9	211.1	301.0	269.9	
REC # 13,	3	9	10	40	0	251.9	254.2	300.4	271.7	REC(M) 29 IN. SNOW
					5 GHZ	250.0	249.8	311.2	270.7	INC=-1.17V
					10 GHZ	268.1	272.5	288.9	275.2	TEMP=-6.5C
					37 GHZ	211.8	206.4	301.5	271.2	
REC # 14,	3	9	10	52	20	246.4	245.8	300.8	274.1	REC(N) 29 IN. SNOW
					5 GHZ	246.6	243.6	311.0	272.8	INC=-.57V
					10 GHZ	265.4	269.3	289.9	277.5	TEMP=-5C
					37 GHZ	219.8	216.8	302.2	273.5	
REC # 15,	3	9	10	58	20	249.6	247.5	300.9	275.4	REC(O) 30 IN. SNOW
					5 GHZ	244.7	241.7	310.7	273.9	INC=-.57V
					10 GHZ	266.1	271.1	290.3	278.6	TEMP=-5C
					37 GHZ	219.5	214.2	302.3	274.7	
REC # 16,	3	9	11	1	0	251.8	254.6	300.9	276.1	REC(P) 30 IN. SNOW
					5 GHZ	251.0	251.7	310.6	274.5	INC=-1.17V
					10 GHZ	267.1	270.9	290.5	279.2	TEMP=-5C
					37 GHZ	214.9	210.5	302.4	275.3	LAST OF FIRST PART OF FLIGHT
										RECS (A-P) RENUMBERED 1-16
REC # 17,	3	9	12	32	0	250.2	243.0	299.7	296.3	BEGINNING OF SECOND PART OF STUDY
					5 GHZ	254.3	255.1	304.4	292.5	RECS (1-21) RENUMBERED 17-36
					10 GHZ	273.6	278.0	298.0	294.4	REC (1) 28.5 IN. SNOW
					37 GHZ	257.3	254.0	302.1	254.4	INC=-1.17V
										TEMP=3C
REC # 18,	3	9	12	40	10	254.7	246.7	303.7	296.3	REC (2) 28.5 IN. SNOW
					5 GHZ	254.8	255.1	308.6	294.7	INC=-.94V
					10 GHZ	270.0	274.8	304.6	295.4	TEMP=4C
					37 GHZ	260.8	257.3	307.1	294.8	
REC # 19,	3	9	12	47	20	259.2	249.8	304.8	296.8	REC (3) 28.5 IN. SNOW
					5 GHZ	262.3	261.8	309.7	295.6	INC=-.57V
					10 GHZ	271.8	273.4	306.5	296.0	TEMP=4C
					37 GHZ	259.5	257.8	308.4	295.3	
REC # 20,	3	9	12	57	30	263.2	250.1	306.2	297.4	REC (4) 28.5 IN. SNOW
					5 GHZ	265.4	264.4	310.9	296.8	4 FT. FROM SNOW
					10 GHZ	265.7	266.0	308.8	296.8	INC=-.34V
					37 GHZ	262.8	254.1	310.1	296.0	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	Notes
21	3	9	13	15	0	238.0	238.8	307.9	298.3	REC(5) ALL SNOW REMOVED TIME APPROXIMATED
					5 GHZ	251.5	252.6	312.3	298.4	
					10 GHZ	255.7	260.8	311.5	297.9	
					37 GHZ	257.0	256.0	312.1	296.9	
22	3	9	13	30	120	259.3	245.4	308.6	298.8	REC(6) ALL SNOW REMOVED SURFACE MELT ON SNOW
					5 GHZ	263.5	262.0	312.9	299.0	
					10 GHZ	257.6	251.0	312.5	298.4	
					37 GHZ	261.1	256.9	312.9	297.3	
23	3	9	13	40	0	251.7	256.9	307.6	298.6	REC(7) 23 IN. SNOW 8 FT. FROM SNOW INC=-1.18V
					5 GHZ	262.5	261.4	311.6	298.2	
					10 GHZ	264.1	266.8	310.1	298.2	
					37 GHZ	261.5	259.7	311.4	297.1	
24	3	9	13	52	10	255.6	250.4	307.8	298.9	REC(9) - REC(8) RESET 23 IN. SNOW VISIBLE SURFACE MELT WATER EVIDENT 3/4 IN. DEEP AIR TEMP=5C
					5 GHZ	259.8	260.2	311.6	298.3	
					10 GHZ	262.4	266.9	310.2	298.3	
					37 GHZ	259.6	261.1	311.5	297.2	
25	3	9	14	0	20	251.1	237.7	307.9	299.0	REC(10) 23 IN. SNOW ON SIDE ROAD BY TREES
					5 GHZ	262.4	249.6	311.6	298.4	
					10 GHZ	261.9	264.8	310.2	298.4	
					37 GHZ	267.9	267.5	311.6	297.3	
26	3	9	14	8	30	248.8	232.9	308.0	299.1	REC(11) 23 IN. SNOW
					5 GHZ	260.5	250.5	311.6	298.5	
					10 GHZ	260.8	263.8	310.2	298.5	
					37 GHZ	267.7	267.8	311.6	297.3	
27	3	9	14	16	41	261.1	241.3	308.1	299.3	REC(12) 23 IN. SNOW ANTENNAS AT 40-42 (FREE HANG)
					5 GHZ	262.8	252.7	311.6	298.5	
					10 GHZ	267.0	265.1	310.3	298.5	
					37 GHZ	268.5	265.7	311.7	297.4	
28	3	9	14	40	0	259.0	259.3	308.3	299.5	REC(13) ALL SNOW REMOVED
					5 GHZ	257.6	258.4	311.6	298.7	
					10 GHZ	262.4	266.8	310.5	298.4	
					37 GHZ	259.2	257.6	311.9	297.4	
29	3	9	14	45	41	260.6	254.5	308.4	299.6	REC(14) ALL SNOW REMOVED ANTENNAS AT 40-42 (FREE HANG)
					5 GHZ	263.1	251.3	311.6	298.7	
					10 GHZ	263.1	262.7	310.5	298.3	
					37 GHZ	267.1	265.9	311.9	297.4	
30	3	9	15	21	0	261.4	260.6	308.8	299.7	REC(15) REFILL LIQUID NITROGEN SITE IS ON SIDE ROAD IN TREES ANTENNAS AT NADIR 8-10 FT. HIGH
					5 GHZ	257.2	256.5	311.6	298.8	
					10 GHZ	260.8	265.5	311.1	297.3	
					37 GHZ	268.9	268.0	312.1	297.0	

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REC # 31,	INCLIN = 10	T (V)	T (H)	HOT LD.	ANT.	
MON = 3	5 GHZ	257.1	255.9	308.8	299.8	REC (16) 14 IN. SITE
DAY = 9	10 GHZ	256.8	257.6	311.6	298.8	
HR = 15	18 GHZ	259.5	262.8	311.1	297.3	
MIN = 30	37 GHZ	266.8	266.3	312.1	297.0	
REC # 32,	INCLIN = 20	T (V)	T (H)	HOT LD.	ANT.	
MON = 3	5 GHZ	257.7	249.6	308.8	299.8	REC (17) 14 IN.
DAY = 9	10 GHZ	262.6	260.1	311.6	298.8	AIR TEMP=4C
HR = 15	18 GHZ	262.7	265.5	311.1	297.3	
MIN = 40	37 GHZ	269.0	268.2	312.1	297.0	
REC # 33,	INCLIN = 30	T (V)	T (H)	HOT LD.	ANT.	
MON = 3	5 GHZ	260.6	245.0	308.8	299.8	REC (18) 14 IN.
DAY = 9	10 GHZ	263.7	259.4	311.6	298.8	
HR = 15	18 GHZ	261.0	263.5	311.1	297.3	
MIN = 47	37 GHZ	268.8	268.5	312.1	297.0	
REC # 34,	INCLIN = 41	T (V)	T (H)	HOT LD.	ANT.	
MON = 3	5 GHZ	266.9	232.8	308.8	299.8	REC (19) 14 IN.
DAY = 9	10 GHZ	261.9	255.3	311.6	298.8	ANTENNAS AT 40-42 (FREE HANG)
HR = 15	18 GHZ	262.5	259.7	311.1	297.3	
MIN = 55	37 GHZ	267.5	268.7	312.1	297.0	
REC # 35,	INCLIN = 0	T (V)	T (H)	HOT LD.	ANT.	
MON = 3	5 GHZ	272.1	270.5	308.8	299.8	REC (20) 14 IN.
DAY = 9	10 GHZ	265.7	265.1	311.6	298.8	
HR = 16	18 GHZ	265.1	269.3	311.1	297.3	
MIN = 10	37 GHZ	263.7	264.2	312.1	297.0	
REC # 36,	INCLIN = 41	T (V)	T (H)	HOT LD.	ANT.	
MON = 3	5 GHZ	271.5	263.3	308.8	299.8	REC (21) 14 IN. SITE
DAY = 9	10 GHZ	254.7	256.7	311.6	298.8	ALL SNOW REMOVED
HR = 16	18 GHZ	264.4	264.7	311.1	297.3	ANTENNAS AT 40-42 (FREE HANG)
MIN = 27	37 GHZ	261.2	258.3	312.1	297.0	

END OF RUN.

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REC # 1,	INCLIN = 0	T (V)	T (H)	HOT LD.	ANT.	FIRST PART OF STUDY - RECS (A-E) RENUMBERED (1-18) SNOW 38 IN DEEP SWATH SCAN SITE 6 WEST SIDE OF ROAD 15 FT FROM SNOW
MON = 3	5 GHZ	211.4	208.1	287.2	267.7	
DAY = 10	10 GHZ	220.5	221.2	299.8	267.1	
HR = 9	18 GHZ	254.6	261.1	279.6	261.7	
MIN = 5	37 GHZ	213.1	214.8	286.5	267.5	
REC # 2,	INCLIN = 5	T (V)	T (H)	HOT LD.	ANT.	REC (B) FRASER
MON = 3	5 GHZ	208.3	203.9	287.7	268.0	
DAY = 10	10 GHZ	219.3	219.6	300.4	267.3	
HR = 9	18 GHZ	250.9	253.8	279.9	262.4	
MIN = 7	37 GHZ	212.3	213.1	287.1	267.8	
REC # 3,	INCLIN = 10	T (V)	T (H)	HOT LD.	ANT.	REC (C)
MON = 3	5 GHZ	207.9	203.2	288.5	268.4	
DAY = 10	10 GHZ	215.1	214.0	301.3	267.7	
HR = 9	18 GHZ	248.2	253.2	280.4	263.3	
MIN = 10	37 GHZ	211.7	212.0	288.0	268.2	
REC # 4,	INCLIN = 15	T (V)	T (H)	HOT LD.	ANT.	REC (D)
MON = 3	5 GHZ	206.2	200.2	288.9	268.7	
DAY = 10	10 GHZ	210.8	207.9	301.9	267.9	
HR = 9	18 GHZ	248.2	251.5	280.8	263.9	
MIN = 12	37 GHZ	209.2	208.0	288.6	268.5	
REC # 5,	INCLIN = 20	T (V)	T (H)	HOT LD.	ANT.	REC (E) AIR TEMP=-3C
MON = 3	5 GHZ	207.5	195.9	289.4	269.0	
DAY = 10	10 GHZ	209.8	201.6	302.4	268.1	
HR = 9	18 GHZ	257.3	254.4	281.1	264.5	
MIN = 14	37 GHZ	204.8	200.3	289.1	268.8	
REC # 6,	INCLIN = 25	T (V)	T (H)	HOT LD.	ANT.	REC (F)
MON = 3	5 GHZ	207.6	195.3	289.9	269.2	
DAY = 10	10 GHZ	211.0	202.0	303.0	268.4	
HR = 9	18 GHZ	255.4	251.0	281.5	265.0	
MIN = 16	37 GHZ	205.7	201.9	289.7	269.1	
REC # 7,	INCLIN = 30	T (V)	T (H)	HOT LD.	ANT.	REC (G)
MON = 3	5 GHZ	208.7	192.6	290.3	269.5	
DAY = 10	10 GHZ	213.5	200.7	303.5	268.6	
HR = 9	18 GHZ	252.6	245.9	281.8	265.6	
MIN = 18	37 GHZ	201.9	190.5	290.2	269.3	
REC # 8,	INCLIN = 35	T (V)	T (H)	HOT LD.	ANT.	REC (H)
MON = 3	5 GHZ	211.7	190.9	290.8	269.8	
DAY = 10	10 GHZ	213.8	196.4	304.0	268.8	
HR = 9	18 GHZ	252.1	242.1	282.2	266.2	
MIN = 20	37 GHZ	203.9	189.3	290.9	269.6	
REC # 9,	INCLIN = 41	T (V)	T (H)	HOT LD.	ANT.	REC (I) AIR TEMP=-5C 40-42 (FREE HANG)
MON = 3	5 GHZ	220.7	193.3	291.2	270.0	
DAY = 10	10 GHZ	228.4	207.1	304.5	269.1	
HR = 9	18 GHZ	255.6	241.8	282.5	266.8	
MIN = 22	37 GHZ	204.3	234.6	291.3	269.9	
REC # 10,	INCLIN = 45	T (V)	T (H)	HOT LD.	ANT.	REC (J) TEMP=-5C
MON = 3	5 GHZ	237.6	194.4	292.7	270.9	
DAY = 10	10 GHZ	234.9	196.6	306.1	269.9	
HR = 9	18 GHZ	258.6	231.6	283.7	268.7	
MIN = 29	37 GHZ	194.5	162.8	293.1	270.8	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 11,					50					
MON = 3					5 GHZ	228.8	196.0	293.1	271.2	REC (K)
DAY = 10					10 GHZ	231.0	206.3	306.5	270.1	
HR = 9					18 GHZ	256.1	242.1	284.0	269.3	
MIN = 31					37 GHZ	205.0	174.1	293.6	271.1	
REC # 12,					55					
MON = 3					5 GHZ	233.6	190.6	293.5	271.4	REC (L)
DAY = 10					10 GHZ	237.5	200.4	306.9	270.4	
HR = 9					18 GHZ	258.2	233.9	284.4	269.8	
MIN = 33					37 GHZ	199.9	166.2	294.1	271.4	
REC # 13,					60					
MON = 3					5 GHZ	236.1	188.9	293.9	271.7	REC (M)
DAY = 10					10 GHZ	237.5	199.9	307.3	270.6	
HR = 9					18 GHZ	256.4	230.4	284.7	270.3	
MIN = 35					37 GHZ	192.6	158.7	294.6	271.6	
REC # 14,					65					
MON = 3					5 GHZ	235.4	182.4	294.3	271.9	REC (N)
DAY = 10					10 GHZ	237.0	194.5	307.7	270.8	
HR = 9					18 GHZ	254.8	220.8	285.1	270.9	
MIN = 37					37 GHZ	193.2	145.2	295.1	271.9	
REC # 15,					70					
MON = 3					5 GHZ	232.0	179.1	294.7	272.2	REC (O)
DAY = 10					10 GHZ	235.4	195.4	308.1	271.1	
HR = 9					18 GHZ	255.1	224.0	285.4	271.4	
MIN = 39					37 GHZ	188.6	143.9	295.5	272.1	
REC # 16,					75					
MON = 3					5 GHZ	132.7	3.9	295.0	272.4	REC (P)
DAY = 10					10 GHZ	221.8	183.5	308.5	271.3	UNSTABLE 5 GHZ BAD GAIN
HR = 9					18 GHZ	244.9	212.3	285.8	271.9	
MIN = 41					37 GHZ	178.7	145.9	296.0	272.4	
REC # 17,					80					
MON = 3					5 GHZ	203.1	151.7	295.4	272.7	REC (Q)
DAY = 10					10 GHZ	213.3	174.9	308.8	271.5	5 GHZ GAIN BAD
HR = 9					18 GHZ	225.5	193.9	286.1	272.4	
MIN = 43					37 GHZ	171.1	142.5	296.5	272.6	
REC # 18,					45					
MON = 3					5 GHZ	227.1	182.6	296.6	273.5	REC (R)
DAY = 10					10 GHZ	233.4	213.2	309.9	272.4	PREVIOUS 45 DEG NOT CORRECT.
HR = 9					18 GHZ	250.5	235.0	287.3	274.2	REPLACE FILE J.
MIN = 50					37 GHZ	203.5	181.8	298.0	273.5	
REC # 19,					0					
MON = 3					5 GHZ	310.1	308.5	298.7	275.1	SECOND PART OF STUDY SITE 5
DAY = 10					10 GHZ	259.5	260.3	311.5	274.1	RECS (1-14) RENUMBERED (19-32)
HR = 10					18 GHZ	271.5	275.3	289.7	277.4	4 IN. DEEP SNOW CHAR. BY BOYNE &
MIN = 4					37 GHZ	220.1	208.7	300.9	275.1	ELLERBRUCH. AIR TEMP=-4C
REC # 20,					10					
MON = 3					5 GHZ	266.5	261.7	299.6	275.8	REC (2)
DAY = 10					10 GHZ	260.0	260.0	312.1	274.9	4 IN. SITE
HR = 10					18 GHZ	265.7	268.8	291.0	279.0	AIR TEMP=-2.5C
MIN = 11					37 GHZ	217.0	211.9	302.2	275.8	

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REC # 21,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	REC(3)	4 IN. SNOW SITE
MON = 3	5 GHZ	266.8	257.8	300.4	276.5		
DAY = 10	10 GHZ	260.7	259.3	312.5	275.8		
HR = 10	18 GHZ	263.9	266.4	292.2	280.4		
MIN = 18	37 GHZ	225.7	218.5	303.4	276.5		
REC # 22,	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	REC(4)	4 IN. SNOW SITE
MON = 3	5 GHZ	268.9	257.8	301.4	277.4		
DAY = 10	10 GHZ	258.3	254.7	312.7	276.9		AIR TEMP=-.5C
HR = 10	18 GHZ	264.7	261.3	293.7	282.2		
MIN = 27	37 GHZ	223.8	215.3	304.8	277.4		
REC # 23,	INCLIN = 41	T(V)	T(H)	HOT LD.	ANT.	REC(5)	4 IN. SNOW SITE
MON = 3	5 GHZ	269.4	249.8	301.6	278.0		40-42 (FREE HANG) ANTENNAS
DAY = 10	10 GHZ	259.1	252.2	311.1	278.4		
HR = 10	18 GHZ	267.1	261.5	296.1	284.8		
MIN = 35	37 GHZ	219.0	211.8	306.2	278.1		
REC # 24,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	REC(6)	ALL SNOW REMOVED
MON = 3	5 GHZ	267.9	264.2	302.5	279.1		FROM SITE. AIR TEMP=-.5C
DAY = 10	10 GHZ	260.7	261.5	311.1	279.7		
HR = 10	18 GHZ	264.0	274.8	297.9	286.5		
MIN = 47	37 GHZ	253.8	246.2	307.7	279.1		
REC # 25,	INCLIN = 41	T(V)	T(H)	HOT LD.	ANT.	REC(7)	4 IN. SNOW SITE
MON = 3	5 GHZ	267.3	252.2	303.1	279.8		ALL SNOW REMOVED
DAY = 10	10 GHZ	261.0	255.4	311.1	280.6		ANTENNAS AT 40-42 (FREE HANG)
HR = 10	18 GHZ	268.6	263.5	298.9	287.3		AIR TEMP=-.5C
MIN = 55	37 GHZ	256.2	250.3	308.4	279.7		
REC # 26,	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	REC(8)	10.5 IN. SNOW SITE
MON = 3	5 GHZ	265.0	262.8	303.9	281.2		8-10 FROM SNOW
DAY = 10	10 GHZ	255.3	255.6	311.1	282.1		AIR TEMP=0C BOOM AT 20 DEG.
HR = 11	18 GHZ	256.3	265.5	300.4	288.2		
MIN = 11	37 GHZ	197.0	191.8	309.5	280.8		
REC # 27,	INCLIN = 10	T(V)	T(H)	HOT LD.	ANT.	REC(9)	10.5 IN. SNOW SITE
MON = 3	5 GHZ	263.1	260.2	304.2	281.6		
DAY = 10	10 GHZ	253.0	251.8	311.1	282.5		
HR = 11	18 GHZ	259.8	261.8	300.8	288.3		
MIN = 16	37 GHZ	193.3	191.2	309.7	281.1		
REC # 28,	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	REC(10)	10.5 IN. SNOW SITE
MON = 3	5 GHZ	262.7	257.2	304.7	283.3		AIR TEMP=.5C SITE 6
DAY = 10	10 GHZ	251.9	247.6	311.1	283.9		
HR = 11	18 GHZ	257.0	256.6	301.5	286.9		
MIN = 29	37 GHZ	198.5	195.6	309.6	282.2		
REC # 29,	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	REC(11)	10.5 IN. SNOW SITE
MON = 3	5 GHZ	264.0	252.2	304.9	283.7		TEMP=.5C
DAY = 10	10 GHZ	261.0	256.8	311.1	284.2		
HR = 11	18 GHZ	258.7	259.7	301.7	286.8		
MIN = 36	37 GHZ	209.7	207.5	309.7	282.5		
REC # 30,	INCLIN = 40	T(V)	T(H)	HOT LD.	ANT.	REC(12)	10.5 IN. SNOW SITE
MON = 3	5 GHZ	268.7	252.9	304.9	283.8		
DAY = 10	10 GHZ	258.3	244.5	311.1	284.3		
HR = 11	18 GHZ	255.6	246.1	301.8	286.7		
MIN = 40	37 GHZ	209.7	205.2	309.7	282.5		

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 31,	3	10	11	55	0	263.2	260.7	305.0	283.9	REC(13) 10.5 IN. SNOW SITE
					5 GHZ	253.2	253.8	311.1	284.4	ALL SNOW REMOVED
					18 GHZ	270.9	275.0	301.9	286.7	
					37 GHZ	249.6	244.6	309.7	282.6	
REC # 32,	3	10	12	2	41	261.9	248.6	305.0	283.9	REC(14) 10.5 IN. SNOW SITE
					5 GHZ	261.9	258.6	311.1	284.4	ALL SNOW REMOVED
					18 GHZ	270.2	270.9	301.9	286.7	TEMP=2.5C
					37 GHZ	260.3	258.1	309.7	282.6	ANTENNAS AT 40-42 (FREE HANG)
REC # 33,	3	10	12	12	0	221.9	219.0	305.0	283.9	RESCAN SAME AREA AS THIS MORNING
					5 GHZ	246.1	246.2	311.1	284.4	RECORDS (A-R) - THIS TIME SOME
					18 GHZ	262.2	266.7	301.9	286.7	SURFACE MELT. SWATH SCAN.
					37 GHZ	251.4	249.7	309.7	282.6	DATA NOT ON TAPE. REC(AA)
REC # 34,	3	10	12	14	5	217.6	214.5	305.0	283.9	REC(BB)
					5 GHZ	238.4	237.4	311.1	284.4	
					18 GHZ	261.0	265.7	301.9	286.7	
					37 GHZ	247.9	246.6	309.7	282.6	
REC # 35,	3	10	12	16	10	214.5	210.3	305.0	283.9	REC(CC)
					5 GHZ	233.5	232.4	311.1	284.4	
					18 GHZ	259.3	266.3	301.9	286.7	
					37 GHZ	246.0	244.5	309.7	282.6	
REC # 36,	3	10	12	18	15	210.9	205.5	305.0	283.9	REC(DD)
					5 GHZ	235.1	232.2	311.1	284.4	
					18 GHZ	260.2	263.9	301.9	286.7	
					37 GHZ	247.6	245.6	309.7	282.6	
REC # 37,	3	10	12	19	20	211.7	203.7	305.0	283.9	REC(EE)
					5 GHZ	237.0	233.7	311.1	284.4	
					18 GHZ	259.6	264.2	301.9	286.7	
					37 GHZ	249.9	247.8	309.7	282.6	
REC # 38,	3	10	12	21	25	214.5	202.3	305.0	283.9	REC(FF)
					5 GHZ	241.9	237.5	311.1	284.4	
					18 GHZ	265.1	265.9	301.9	286.7	
					37 GHZ	250.9	245.2	309.7	282.6	
REC # 39,	3	10	12	23	30	217.6	202.1	305.0	283.9	REC(GG)
					5 GHZ	244.2	237.0	311.1	284.4	
					18 GHZ	261.4	263.3	301.9	286.7	
					37 GHZ	252.3	245.0	309.7	282.6	
REC # 40,	3	10	12	25	35	221.2	199.8	305.0	283.9	REC(HH)
					5 GHZ	245.5	235.6	311.1	284.4	
					18 GHZ	263.1	262.6	301.9	286.7	
					37 GHZ	253.1	244.7	309.7	282.6	

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REC #	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 41,	INCLIN = 41	T(V)	T(H)	HOT LD.	ANT.	REC(II)
MON = 3	5 GHZ	222.2	202.0	305.0	283.9	ANTENNAS AT 40-42 (FREE HANG)
DAY = 10	10 GHZ	245.8	236.8	311.1	284.4	
HR = 12	18 GHZ	264.3	262.8	301.9	286.7	
MIN = 27	37 GHZ	256.9	249.2	309.7	282.6	
REC # 42,	INCLIN = 45	T(V)	T(H)	HOT LD.	ANT.	REC(JJ)
MON = 3	5 GHZ	236.1	207.5	305.0	283.9	
DAY = 10	10 GHZ	253.4	240.5	311.1	284.4	
HR = 12	18 GHZ	258.6	258.5	301.9	286.7	
MIN = 31	37 GHZ	258.6	246.4	309.7	282.6	
REC # 43,	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	REC(KK)
MON = 3	5 GHZ	241.2	205.4	305.0	283.9	
DAY = 10	10 GHZ	254.1	237.5	311.1	284.4	
HR = 12	18 GHZ	256.3	259.5	301.9	286.7	
MIN = 33	37 GHZ	259.5	239.1	309.7	282.6	
REC # 44,	INCLIN = 55	T(V)	T(H)	HOT LD.	ANT.	REC(LL)
MON = 3	5 GHZ	246.3	198.7	305.0	283.9	
DAY = 10	10 GHZ	256.1	239.1	311.1	284.4	
HR = 12	18 GHZ	256.7	257.5	301.9	286.7	
MIN = 35	37 GHZ	260.3	233.0	309.7	282.6	
REC # 45,	INCLIN = 60	T(V)	T(H)	HOT LD.	ANT.	REC(MM)
MON = 3	5 GHZ	248.7	193.5	305.0	283.9	
DAY = 10	10 GHZ	255.6	233.5	311.1	284.4	
HR = 12	18 GHZ	257.0	259.2	301.9	286.7	
MIN = 37	37 GHZ	258.3	234.7	309.7	282.6	
REC # 46,	INCLIN = 65	T(V)	T(H)	HOT LD.	ANT.	REC(NN)
MON = 3	5 GHZ	246.9	181.0	305.0	283.9	
DAY = 10	10 GHZ	253.8	219.3	311.1	284.4	
HR = 12	18 GHZ	255.3	252.5	301.9	286.7	
MIN = 39	37 GHZ	256.9	226.1	309.7	282.6	
REC # 47,	INCLIN = 70	T(V)	T(H)	HOT LD.	ANT.	REC(OO)
MON = 3	5 GHZ	244.3	174.2	305.0	283.9	
DAY = 10	10 GHZ	249.3	217.5	311.1	284.4	
HR = 12	18 GHZ	254.0	252.3	301.9	286.7	
MIN = 41	37 GHZ	255.6	224.2	309.7	282.6	
REC # 48,	INCLIN = 75	T(V)	T(H)	HOT LD.	ANT.	REC(PP)
MON = 3	5 GHZ	232.2	158.5	305.0	283.9	RESCAN OF SAME AREA AS THIS MORNING
DAY = 10	10 GHZ	234.0	204.0	311.1	284.4	TIME APPROXIMATED
HR = 12	18 GHZ	246.1	244.5	301.9	286.7	
MIN = 43	37 GHZ	251.8	231.2	309.7	282.6	
REC # 49,	INCLIN = 80	T(V)	T(H)	HOT LD.	ANT.	REC(QQ)
MON = 3	5 GHZ	216.7	149.9	305.0	283.9	LAST RECORD
DAY = 10	10 GHZ	210.5	179.7	311.1	284.4	TIME APPROXIMATED.
HR = 12	18 GHZ	237.2	235.2	301.9	286.7	
MIN = 45	37 GHZ	247.0	232.1	309.7	282.6	

END OF RUN.

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
1	3	15	15	13	0	0.0	0.0	289.6	273.2	LOVELAND PASS (SITE 1) 8 FT. DEEP SPOT SCAN OF AREA LOOKING NORTH OF TRUCK. SNOW DEPTH FAIRLY LEVEL. NO 5 GHZ DATA TODAY.
					10	254.4	255.6	311.3	272.1	
					18	278.3	279.2	285.0	272.6	
					37	234.2	232.4	295.1	272.2	
2	3	15	15	18	10	0.0	0.0	290.4	273.3	DEPTH APPROX. 8 FT. SNOW LEVEL 5 GHZ STILL DOWN
					10	252.5	252.4	311.4	272.2	
					18	272.4	274.8	285.3	272.9	
					37	226.5	222.0	295.5	272.3	
3	3	15	15	23	20	0.0	0.0	291.2	273.3	DEPTH APPROX. 8 FT. SNOW LEVEL
					10	252.4	250.4	311.4	272.3	
					18	270.7	268.2	285.7	273.1	
					37	232.5	227.3	296.0	272.3	
4	3	15	15	28	30	0.0	0.0	292.1	273.4	8 FT. DEEP 5 GHZ STILL NOT WORKING
					10	254.4	247.4	311.4	272.4	
					18	270.8	267.4	286.0	273.3	
					37	240.6	231.0	296.5	272.4	
5	3	15	15	33	41	0.0	0.0	296.3	273.2	8 FT. DEEP 40-42 (FREE HANG)
					10	257.6	247.5	310.8	272.5	
					18	274.6	264.5	287.3	272.9	
					37	245.7	231.2	298.5	272.2	
6	3	15	15	53	45	0.0	0.0	298.5	273.3	8 FT. DEEP AIR TEMP=-15C
					10	259.1	244.6	310.7	272.7	
					18	273.4	259.6	288.1	273.2	
					37	246.3	223.6	299.6	272.3	
7	3	15	16	0	50	0.0	0.0	298.8	273.3	
					10	259.0	242.6	310.7	272.7	
					18	295.7	278.2	288.2	273.2	
					37	245.2	226.0	299.8	272.3	
8	3	15	16	8	55	0.0	0.0	298.8	273.3	
					10	258.5	244.8	310.7	272.7	
					18	273.2	255.4	288.2	273.2	
					37	245.5	226.4	299.8	272.3	
9	3	15	16	21	60	0.0	0.0	298.8	273.3	8 FT. DEEP AIR TEMP=-17.5C 18 GHZ DATA NOT ON PAGE 37 GHZ DATA NOT ON PAGE
					10	256.4	228.6	310.7	272.7	
					0	0.0	0.0	288.2	273.2	
					0	0.0	0.0	299.8	272.3	
10	3	15	16	29	65	0.0	0.0	298.8	273.3	TEMP BETWEEN -17.5C AND -20C
					10	255.0	236.0	310.7	272.7	
					18	270.9	242.8	288.2	273.2	
					37	240.5	215.8	299.8	272.3	

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REC # 11,	INCLIN = 70	T(V)	T(H)	HOT LD.	ANT.
MON = 3	0 GHZ	0.0	0.0	298.8	273.3
DAY = 15	10 GHZ	256.4	239.2	310.7	272.7
HR = 16	18 GHZ	271.3	252.8	288.2	273.2
MIN = 38	37 GHZ	239.4	218.8	299.8	272.3

REC # 12,	INCLIN = 75	T(V)	T(H)	HOT LD.	ANT.
MON = 3	0 GHZ	0.0	0.0	298.8	273.3
DAY = 15	10 GHZ	255.6	237.5	310.7	272.7
HR = 16	18 GHZ	269.8	252.5	288.2	273.2
MIN = 45	37 GHZ	240.5	218.5	299.8	272.3

HIGH WINDS -
ANTENNA SWING 5-10 DEGREE
SITE 1 LOVELAND PASS
8 FT. DEEP

REC # 13,	INCLIN = 80	T(V)	T(H)	HOT LD.	ANT.
MON = 3	0 GHZ	0.0	0.0	298.8	273.3
DAY = 15	10 GHZ	253.9	235.9	310.7	272.7
HR = 16	18 GHZ	264.6	253.8	288.2	273.2
MIN = 57	37 GHZ	240.4	219.8	299.8	272.3

LAST REC. 5 GHZ DOWN.

END OF RUN.

1978 SHMR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 3/16/78

REC # 1, 3	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	LOVELAND PASS SITE 2 BRIGHT SUN SPOT SCAN 5 GHZ NOT WORKING IN RECS 1-30. 36 IN. DEEP FOR 37 GHZ
MON = 16	0 GHZ	0.0	0.0	285.6	265.1	
DAY = 16	10 GHZ	247.7	248.9	290.8	262.4	
HR = 9	18 GHZ	277.3	283.9	276.7	263.5	
MIN = 0	37 GHZ	226.1	222.9	285.4	264.3	
REC # 2, 3	INCLIN = 10	T(V)	T(H)	HOT LD.	ANT.	BRIGHT SUN AIR TEMP=-14C SITE 2 ROAD BACK OF TRUCK
MON = 16	0 GHZ	0.0	0.0	287.8	266.4	
DAY = 16	10 GHZ	247.1	247.8	301.9	263.8	
HR = 9	18 GHZ	281.4	283.5	278.4	265.5	
MIN = 7	37 GHZ	230.9	223.2	287.8	265.8	
REC # 3, 3	INCLIN = 20	T(V)	T(H)	HOT LD.	ANT.	
MON = 16	0 GHZ	0.0	0.0	289.3	267.3	
DAY = 16	10 GHZ	240.4	239.2	303.3	264.7	
HR = 9	18 GHZ	276.6	278.1	279.5	266.8	
MIN = 12	37 GHZ	232.9	227.2	289.4	266.8	
REC # 4, 3	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	AIR TEMP=-14C BRIGHT SUN
MON = 16	0 GHZ	0.0	0.0	291.0	268.4	
DAY = 16	10 GHZ	241.8	235.3	304.8	265.9	
HR = 9	18 GHZ	274.1	270.5	280.9	268.4	
MIN = 18	37 GHZ	232.5	225.8	291.3	268.0	
REC # 5, 3	INCLIN = 41	T(V)	T(H)	HOT LD.	ANT.	ANTENNAS AT 40-42 (FREE HANG)
MON = 16	0 GHZ	0.0	0.0	293.5	270.2	
DAY = 16	10 GHZ	247.3	229.8	307.2	267.8	
HR = 9	18 GHZ	273.6	263.7	283.0	270.9	
MIN = 28	37 GHZ	231.8	222.4	294.2	270.0	
REC # 6, 3	INCLIN = 45	T(V)	T(H)	HOT LD.	ANT.	COULD NOT READ 37 GHZ H
MON = 16	0 GHZ	0.0	0.0	298.1	274.1	
DAY = 16	10 GHZ	249.4	228.3	311.1	271.7	
HR = 9	18 GHZ	268.8	256.5	287.3	276.0	
MIN = 50	37 GHZ	229.0	212.3	299.8	274.1	
REC # 7, 3	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	AIR TEMP=-13C
MON = 16	0 GHZ	0.0	0.0	299.5	275.5	
DAY = 16	10 GHZ	252.8	226.5	312.2	273.0	
HR = 9	18 GHZ	267.2	250.0	288.7	277.7	
MIN = 58	37 GHZ	231.1	214.2	301.5	275.5	
REC # 8, 3	INCLIN = 55	T(V)	T(H)	HOT LD.	ANT.	
MON = 16	0 GHZ	0.0	0.0	300.6	276.8	
DAY = 16	10 GHZ	254.1	225.6	313.0	274.3	
HR = 10	18 GHZ	265.7	251.7	290.1	279.2	
MIN = 6	37 GHZ	230.6	218.5	303.0	276.9	
REC # 9, 3	INCLIN = 60	T(V)	T(H)	HOT LD.	ANT.	TEMP=-12C
MON = 16	0 GHZ	0.0	0.0	301.5	278.2	
DAY = 16	10 GHZ	254.2	226.1	313.6	275.6	
HR = 10	18 GHZ	264.6	242.5	291.4	280.7	
MIN = 14	37 GHZ	230.9	208.3	304.4	278.3	
REC # 10, 3	INCLIN = 65	T(V)	T(H)	HOT LD.	ANT.	HIGH WIND - ANTENNA PACKAGE SWINGING 5-10 DEGREES. BRIGHT SUN TEMP=-12C
MON = 16	0 GHZ	0.0	0.0	302.7	280.5	
DAY = 16	10 GHZ	253.9	210.5	314.2	277.7	
HR = 10	18 GHZ	264.6	220.0	293.4	283.2	
MIN = 28	37 GHZ	228.0	201.7	306.3	280.5	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 11,	3				70	T(V)	T(H)	HOT LD.	ANT.	
MON = 16	10	18	33		0 GHZ	0.0	0.0	300.5	282.0	STILL HIGH WIND
DAY = 16	10	18	33		10 GHZ	249.5	215.4	311.1	278.8	PACKAGE STILL SWINGING
HR = 10	18	37			18 GHZ	257.0	227.4	293.5	283.8	
MIN = 33	37				37 GHZ	224.9	195.8	305.5	281.8	
REC # 12,	3				75	T(V)	T(H)	HOT LD.	ANT.	
MON = 16	10	18	39		0 GHZ	0.0	0.0	300.7	282.9	BRIGHT SUN
DAY = 16	10	18	39		10 GHZ	245.8	199.3	311.1	279.6	
HR = 10	18	37			18 GHZ	256.6	224.8	298.2	284.7	
MIN = 39	37				37 GHZ	223.4	186.2	306.2	282.7	
REC # 13,	3				80	T(V)	T(H)	HOT LD.	ANT.	
MON = 16	10	18	50		0 GHZ	0.0	0.0	301.2	284.5	WIND STILL SWINGING PACKAGE
DAY = 16	10	18	50		10 GHZ	239.5	201.6	311.1	281.0	END OF SPOT SCAN
HR = 10	18	37			18 GHZ	238.0	205.7	295.6	286.3	
MIN = 50	37				37 GHZ	211.3	177.5	307.3	284.3	
REC # 14,	3				140	T(V)	T(H)	HOT LD.	ANT.	
MON = 16	10	18	58		0 GHZ	0.0	0.0	301.6	285.6	SKY CAL
DAY = 16	10	18	58		10 GHZ	4.4	5.6	311.1	282.0	
HR = 10	18	37			18 GHZ	14.5	10.7	296.5	287.3	
MIN = 58	37				37 GHZ	8.7	26.5	308.0	285.3	
REC # 15,	3				80	T(V)	T(H)	HOT LD.	ANT.	
MON = 16	10	18	10		0 GHZ	0.0	0.0	302.0	287.2	LOVELAND PASS SITE 3 NEAR TRUCK
DAY = 16	10	18	10		10 GHZ	259.3	225.9	311.1	283.3	6 FT. DEEP BRIGHT SUN
HR = 11	18	37			18 GHZ	254.2	236.8	297.9	288.7	WINDY IN GUSTS MOVING PACKAGE
MIN = 10	37				37 GHZ	230.2	205.2	308.9	286.8	
REC # 16,	3				75	T(V)	T(H)	HOT LD.	ANT.	
MON = 16	10	18	18		0 GHZ	0.0	0.0	302.3	288.1	
DAY = 16	10	18	18		10 GHZ	253.1	223.2	311.1	284.2	
HR = 11	18	37			18 GHZ	256.2	235.9	298.8	289.6	
MIN = 18	37				37 GHZ	235.4	211.1	309.5	287.6	
REC # 17,	3				70	T(V)	T(H)	HOT LD.	ANT.	
MON = 16	10	18	26		0 GHZ	0.0	0.0	302.6	289.0	WIND MOVING PACKAGE
DAY = 16	10	18	26		10 GHZ	256.6	224.8	311.1	284.9	
HR = 11	18	37			18 GHZ	260.4	235.3	299.6	290.4	
MIN = 26	37				37 GHZ	239.3	214.3	310.0	288.5	
REC # 18,	0				65	T(V)	T(H)	HOT LD.	ANT.	
MON = 16	10	18	36		0 GHZ	0.0	0.0	302.9	290.0	TEMP=-10C WIND STILL BLOWING
DAY = 16	10	18	36		10 GHZ	258.6	233.7	311.1	285.7	BRIGHT SUN
HR = 11	18	37			18 GHZ	261.2	232.7	300.6	291.2	
MIN = 36	37				37 GHZ	242.0	216.8	310.5	289.4	
REC # 19,	3				60	T(V)	T(H)	HOT LD.	ANT.	
MON = 16	10	18	45		0 GHZ	0.0	0.0	303.2	290.8	WIND NOT QUITE SO HARD
DAY = 16	10	18	45		10 GHZ	258.1	238.6	311.1	286.4	PACKAGE MOVEMENT SLOWER
HR = 11	18	37			18 GHZ	262.7	245.3	301.4	291.9	
MIN = 45	37				37 GHZ	243.8	228.2	310.8	290.1	
REC # 20,	3				55	T(V)	T(H)	HOT LD.	ANT.	
MON = 16	10	18	54		0 GHZ	0.0	0.0	303.4	291.5	TEMP=-11C
DAY = 16	10	18	54		10 GHZ	258.9	234.0	311.1	287.0	
HR = 11	18	37			18 GHZ	265.7	245.0	302.2	292.5	
MIN = 54	37				37 GHZ	245.2	226.4	311.1	290.7	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	TEMP	NOTES
21	3	16	12	2	50	0.0	0.0	303.6	292.1	-10C	
					0 GHZ	258.7	240.9	311.1	287.5		
					10 GHZ	266.3	247.1	302.9	292.9		
					18 GHZ	245.0	229.0	311.3	291.2		
22	3	16	12	9	45	0.0	0.0	303.7	291.5		
					0 GHZ	258.0	243.3	311.1	286.8		
					10 GHZ	263.5	247.2	303.9	292.8		
					18 GHZ	245.6	231.1	310.2	290.8		
23	3	16	12	15	41	0.0	0.0	303.8	291.9		ANTENNAS AT 40-42 (FREE HANG)
					0 GHZ	257.8	245.3	311.1	287.1		
					10 GHZ	259.2	248.4	304.4	293.0		
					18 GHZ	243.9	232.6	310.3	291.1		
24	3	16	12	40	35	0.0	0.0	304.3	293.3		
					0 GHZ	259.0	251.2	311.1	288.1		
					10 GHZ	260.3	257.4	305.8	293.6		
					18 GHZ	244.1	235.7	310.5	292.1		
25	3	16	12	47	30	0.0	0.0	304.4	293.6	-11C	
					0 GHZ	257.0	253.2	311.1	288.4		
					10 GHZ	263.0	259.7	306.2	293.7		
					18 GHZ	241.7	237.4	310.6	292.3		
26	3	16	12	53	25	0.0	0.0	304.5	293.9	-10C	STILL SITE 3 LOVELAND
					0 GHZ	255.5	251.3	311.1	288.6		
					10 GHZ	258.4	257.8	306.4	293.7		
					18 GHZ	236.8	231.9	310.6	292.5		
27	3	16	13	5	20	0.0	0.0	304.6	294.4	-9C	
					0 GHZ	254.5	249.8	311.1	289.0		
					10 GHZ	258.2	256.0	306.8	293.6		
					18 GHZ	232.0	228.7	310.7	292.7		
28	3	16	13	11	15	0.0	0.0	304.7	294.7		NOT SURE ABOUT 10 GHZ V
					0 GHZ	253.0	251.9	311.1	289.2		
					10 GHZ	252.8	256.5	306.9	293.6		
					18 GHZ	229.2	229.5	310.7	292.8		
29	3	16	13	19	10	0.0	0.0	304.8	295.0		
					0 GHZ	253.9	253.8	311.1	289.4		
					10 GHZ	243.8	246.5	307.0	293.4		
					18 GHZ	224.4	224.4	310.7	292.9		
30	3	16	13	26	5	0.0	0.0	304.8	295.3	-9C	
					0 GHZ	256.5	256.4	311.1	289.5		
					10 GHZ	242.5	249.6	307.1	293.2		
					18 GHZ	223.7	224.6	310.8	293.0		

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 31,					INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					0 GHZ	0.0	0.0	304.8	295.9	
DAY = 16					10 GHZ	253.3	252.7	311.1	289.8	
HR = 13					18 GHZ	245.3	245.6	306.7	292.6	
MIN = 35					37 GHZ	213.3	211.8	310.7	293.0	
										REJUICED SYSTEM - 5 GHZ WORKING
REC # 32,					INCLIN = 80	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	267.5	246.0	304.9	296.4	
DAY = 16					10 GHZ	254.7	236.3	311.1	290.2	
HR = 14					18 GHZ	241.7	225.2	306.7	291.6	
MIN = 0					37 GHZ	244.5	226.1	310.7	292.9	
										LOVELAND PASS SITE 1 RESCAN OF SITE 1 WITH 5 GHZ WORKING TEMP=-9C
REC # 33,					INCLIN = 75	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	268.0	247.2	305.0	296.5	
DAY = 16					10 GHZ	256.1	238.3	311.1	290.2	
HR = 14					18 GHZ	248.0	232.9	306.6	291.2	
MIN = 8					37 GHZ	245.8	226.9	310.7	292.9	
										BRIGHT SUN HIGH WINDS TEMP=-9C
REC # 34,					INCLIN = 70	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	268.9	239.6	305.0	296.5	
DAY = 16					10 GHZ	255.3	225.1	311.1	290.2	
HR = 14					18 GHZ	248.2	225.2	306.5	290.9	
MIN = 15					37 GHZ	249.4	226.5	310.6	292.8	
										SAME
REC # 35,					INCLIN = 65	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	270.4	241.0	305.0	296.4	
DAY = 16					10 GHZ	257.4	232.7	311.1	290.2	
HR = 14					18 GHZ	247.2	225.6	306.4	290.4	
MIN = 25					37 GHZ	247.9	225.4	310.6	292.6	
										SAME
REC # 36,					INCLIN = 60	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	270.9	243.9	305.0	296.3	
DAY = 16					10 GHZ	258.8	227.8	311.1	290.1	
HR = 14					18 GHZ	249.3	225.5	306.3	290.0	
MIN = 34					37 GHZ	248.3	222.0	310.5	292.4	
										SAME
REC # 37,					INCLIN = 55	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	271.3	245.8	305.0	296.1	
DAY = 16					10 GHZ	260.1	230.4	311.1	290.0	
HR = 14					18 GHZ	252.1	227.5	306.2	289.6	
MIN = 41					37 GHZ	249.0	226.6	310.5	292.2	
										TEMP=-9C BRIGHT SUN
REC # 38,					INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	270.9	248.2	305.0	296.3	
DAY = 16					10 GHZ	261.1	236.9	311.1	289.9	
HR = 14					18 GHZ	251.4	228.3	306.1	289.2	
MIN = 47					37 GHZ	249.2	229.0	310.5	292.0	
REC # 39,					INCLIN = 45	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	270.2	250.5	305.0	295.7	
DAY = 16					10 GHZ	261.6	239.3	311.1	289.8	
HR = 14					18 GHZ	250.9	232.9	306.0	288.8	
MIN = 54					37 GHZ	251.8	235.8	310.4	291.8	
REC # 40,					INCLIN = 41	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	268.2	253.0	304.9	295.4	
DAY = 16					10 GHZ	259.7	246.6	311.1	289.6	
HR = 15					18 GHZ	249.2	239.8	305.8	288.3	
MIN = 2					37 GHZ	249.8	237.7	310.4	291.5	
										LOVELAND PASS SITE 1 RECS (1-13) RENUMBERED (40-52) 40-42 (FREE HANG) REC (1)

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
41	3	16	15	12	30	265.6	255.3	304.6	292.3	REC (2)
					5 GHZ	256.6	248.8	311.1	287.9	
					10 GHZ	248.4	244.7	304.6	285.5	
					18 GHZ	247.7	238.2	309.9	289.4	
42	3	16	15	17	20	263.3	257.4	304.6	292.1	REC (3) TEMP=-8C
					5 GHZ	253.7	248.6	311.1	287.8	
					10 GHZ	245.7	243.1	304.5	285.3	
					18 GHZ	243.9	242.7	309.9	289.3	
43	3	16	15	25	10	261.2	257.3	304.6	291.9	REC (4) HIGH WIND BRIGHT SUN
					5 GHZ	251.7	249.2	311.1	287.6	
					10 GHZ	246.8	247.5	304.4	285.0	
					18 GHZ	244.0	244.5	309.8	289.0	
44	3	16	15	32	0	266.2	263.6	304.6	291.7	REC (5) TEMP=-9C SITE 1
					5 GHZ	255.9	254.8	311.1	287.5	
					10 GHZ	247.3	252.6	304.3	284.7	
					18 GHZ	242.9	245.5	309.8	288.9	
45	3	16	15	37	0	261.2	258.1	304.6	291.6	REC (6) LOVELAND PASS SITE 3
					5 GHZ	255.1	254.9	311.1	287.5	DEPTH 6 FT.
					10 GHZ	262.2	266.3	304.3	284.6	
					18 GHZ	241.3	245.0	309.8	288.8	
46	3	16	15	45	10	260.2	256.2	304.6	291.5	REC (7) SITE 3 HIGH WINDS
					5 GHZ	251.1	249.0	311.1	287.4	TEMP=-9C
					10 GHZ	257.7	261.8	304.2	284.4	
					18 GHZ	236.3	237.8	309.8	288.7	
47	3	16	15	55	20	263.8	256.4	304.6	291.4	REC (8) HIGH WINDS
					5 GHZ	253.2	248.5	311.1	287.3	BLOWING SNOW AT TIMES
					10 GHZ	261.1	258.2	304.2	284.3	SUN STARTING TO SET
					18 GHZ	238.3	234.3	309.7	288.6	SHADOW OVER TARGET AREA TEMP=-9C
48	3	16	16	2	30	266.7	255.2	304.6	291.4	REC (9) SITE 3
					5 GHZ	256.5	248.7	311.1	287.3	EXTREMELY STRONG GUSTS
					10 GHZ	262.7	258.2	304.2	284.2	
					18 GHZ	243.3	234.3	309.7	288.6	
49	3	16	16	8	41	268.6	254.5	304.6	291.4	REC (10) WINDY TEMP=-10C
					5 GHZ	257.0	244.2	311.1	287.3	ANTENNAS AT 40-42 (FREE HANG)
					10 GHZ	263.2	253.5	304.2	284.2	
					18 GHZ	242.5	231.0	309.7	288.6	
50	3	16	16	18	50	272.1	243.4	304.6	291.4	REC (11) TEMP=-10C
					5 GHZ	259.3	217.7	311.1	287.3	
					10 GHZ	265.4	232.0	304.2	284.2	
					18 GHZ	244.6	213.6	309.7	288.6	

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REC # 51,	INCLIN = 60	T (V)	T (H)	HOT LD.	ANT.	REC (12)	TEMP=-10C
MON = 3	5 GHZ	268.2	237.3	304.6	291.4		
DAY = 16	10 GHZ	253.2	210.7	311.1	287.3		
HR = 16	18 GHZ	259.2	225.2	304.2	284.2		
MIN = 27	37 GHZ	241.5	210.1	309.7	288.6		
REC # 52,	INCLIN = 70	T (V)	T (H)	HOT LD.	ANT.	REC (13)	LAST REC
MON = 3	5 GHZ	267.9	243.5	304.6	291.4	SAME	
DAY = 16	10 GHZ	254.4	231.9	311.1	287.3		
HR = 16	18 GHZ	259.9	246.7	304.2	284.2		
MIN = 38	37 GHZ	241.4	218.2	309.7	288.6		
END OF RUN.							

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REC #	INCLIN	FREQ	T(V)	T(H)	HOT LD.	ANT.	NOTES
REC # 1,	INCLIN = 0						
MON = 3	5 GHZ	270.6	267.9	285.6	273.2		LOVELAND PASS RECS 1-3
DAY = 17	10 GHZ	260.1	261.4	295.8	271.3		1 = X BAND ECCOSORB TEMP=-5C
HR = 9	18 GHZ	285.2	290.4	283.3	274.1		2 = C BAND ECCOSORB TEMP=-5C
MIN = 0	37 GHZ	260.7	255.6	290.5	273.8		3 = 18 & 37 ECCOSORB TEMP=-5C
REC # 4,	INCLIN = 0						
MON = 3	5 GHZ	250.4	317.2	293.0	276.1		LOVELAND PASS SITE 2
DAY = 17	10 GHZ	244.4	329.3	303.9	274.8		36 IN. DEEP 18-37, 39 C BAND, &
HR = 9	18 GHZ	265.3	357.0	289.3	278.5		43 X BAND. BRIGHT SUN. TEMP=-5C
MIN = 20	37 GHZ	223.6	346.2	299.4	277.7		BAD DRIFT IN C BAND GAIN
REC # 5,	INCLIN = 41						
MON = 3	5 GHZ	253.6	233.7	295.5	277.4		ANTENNAS AT 40-42 (FREE HANG)
DAY = 17	10 GHZ	245.5	225.9	306.4	276.3		
HR = 9	18 GHZ	259.4	249.3	291.6	280.2		
MIN = 28	37 GHZ	228.5	212.3	302.3	279.3		
REC # 6,	INCLIN = 30						
MON = 3	5 GHZ	253.7	239.2	299.9	280.4		TEMP=-3.5C
DAY = 17	10 GHZ	247.9	235.7	310.3	279.4		
HR = 9	18 GHZ	260.9	250.6	296.4	283.9		
MIN = 45	37 GHZ	229.7	216.6	307.2	282.6		
REC # 7,	INCLIN = 20						
MON = 3	5 GHZ	253.6	246.3	301.9	282.4		BRIGHT SUN TEMP=-3C
DAY = 17	10 GHZ	246.0	249.2	311.6	281.2		
HR = 9	18 GHZ	264.0	256.1	299.1	286.1		
MIN = 55	37 GHZ	230.2	222.3	309.3	284.6		
REC # 8,	INCLIN = 10						
MON = 3	5 GHZ	254.0	249.5	302.8	283.7		BRIGHT SUN TEMP=-3C
DAY = 17	10 GHZ	251.2	248.2	312.1	282.4		LITTLE OR NO WIND
HR = 10	18 GHZ	254.0	253.6	300.7	287.5		
MIN = 1	37 GHZ	230.9	224.0	310.3	285.8		
REC # 9,	INCLIN = 0						
MON = 3	5 GHZ	252.2	245.1	303.7	285.0		TEMP=-2C
DAY = 17	10 GHZ	256.9	256.7	312.4	283.5		
HR = 10	18 GHZ	263.7	267.1	302.2	288.8		
MIN = 7	37 GHZ	232.1	224.5	311.0	287.0		
REC # 10,	INCLIN = 50						
MON = 3	5 GHZ	258.1	229.1	304.7	288.9		TEMP=-3.5C
DAY = 17	10 GHZ	250.8	227.5	311.2	286.7		
HR = 10	18 GHZ	258.8	245.1	306.2	292.5		
MIN = 16	37 GHZ	234.6	219.7	311.6	290.3		
REC # 11,	INCLIN = 60						
MON = 3	5 GHZ	261.8	218.1	305.2	290.1		BRIGHT SUN
DAY = 17	10 GHZ	250.8	208.5	311.2	287.7		
HR = 10	18 GHZ	253.7	223.9	307.6	293.7		
MIN = 25	37 GHZ	224.1	193.9	312.0	291.4		
REC # 12,	INCLIN = 70						
MON = 3	5 GHZ	252.3	200.8	305.4	290.5		TEMP=-1C
DAY = 17	10 GHZ	247.1	198.8	311.1	288.0		
HR = 10	18 GHZ	239.5	206.9	308.0	294.0		
MIN = 32	37 GHZ	224.1	193.9	312.1	291.7		

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REC # 13,	INCLIN = 140	T(V)	T(H)	HOT LD.	ANT.	LAST RECORD	SKY CAL
MON = 3	5 GHZ	3.2	5.1	305.4	290.4	ESTIMATED TIME	
DAY = 17	10 GHZ	5.8	5.2	311.1	288.0		
HR = 10	18 GHZ	21.1	22.8	307.9	293.9		
MIN = 40	37 GHZ	11.3	25.3	312.1	291.6		

END OF RUN.

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REC # 1,	INCLIN = 0	T (V)	T (H)	HOT LD.	ANT.	LOCATION FRASER BRIGHT SUN TEMP=5C
MON = 3	5 GHZ	253.8	251.0	286.6	279.9	
DAY = 21	10 GHZ	259.4	259.8	296.5	275.4	
HR = 10	18 GHZ	279.6	285.9	291.2	273.1	
MIN = 48	37 GHZ	255.4	255.6	293.9	281.0	
REC # 2,	INCLIN = 0	T (V)	T (H)	HOT LD.	ANT.	TEMP=5C
MON = 3	5 GHZ	253.2	249.8	289.3	281.8	
DAY = 21	10 GHZ	255.4	256.7	298.6	277.5	
HR = 10	18 GHZ	281.7	284.2	293.8	276.4	
MIN = 58	37 GHZ	258.3	253.4	296.4	282.9	
REC # 3,	INCLIN = 0	T (V)	T (H)	HOT LD.	ANT.	TEMP=4C
MON = 3	5 GHZ	254.0	252.5	294.6	285.7	
DAY = 21	10 GHZ	255.6	256.4	302.7	281.8	
HR = 11	18 GHZ	283.5	289.0	298.9	282.9	
MIN = 20	37 GHZ	251.9	244.5	301.3	286.8	
REC # 4,	INCLIN = 0	T (V)	T (H)	HOT LD.	ANT.	TEMP=5C BRIGHT SUN
MON = 3	5 GHZ	255.0	252.3	296.8	287.3	
DAY = 21	10 GHZ	257.8	258.7	304.3	283.6	
HR = 11	18 GHZ	279.2	284.2	300.9	285.5	
MIN = 30	37 GHZ	248.1	240.8	303.3	288.4	
REC # 5,	INCLIN = 0	T (V)	T (H)	HOT LD.	ANT.	TEMP=5C
MON = 3	5 GHZ	253.7	250.2	298.5	288.5	
DAY = 21	10 GHZ	259.2	260.5	305.5	285.0	
HR = 11	18 GHZ	276.5	279.6	302.5	287.5	
MIN = 38	37 GHZ	245.4	238.8	304.8	289.7	
REC # 6,	INCLIN = 0	T (V)	T (H)	HOT LD.	ANT.	37 GHZ DATA NOT COPIED
MON = 3	5 GHZ	253.3	250.8	299.8	289.6	
DAY = 21	10 GHZ	261.4	261.8	306.6	286.1	
HR = 11	18 GHZ	273.5	278.8	303.8	289.1	
MIN = 45	0 GHZ	0.0	0.0	306.0	290.7	
REC # 7,	INCLIN = 0	T (V)	T (H)	HOT LD.	ANT.	TEMP=6C
MON = 3	5 GHZ	252.2	253.6	301.1	290.6	
DAY = 21	10 GHZ	262.1	262.5	307.5	287.2	
HR = 11	18 GHZ	272.1	277.3	305.0	290.7	
MIN = 52	37 GHZ	241.7	235.5	307.1	291.7	
REC # 8,	INCLIN = 0	T (V)	T (H)	HOT LD.	ANT.	TEMP=6C
MON = 3	5 GHZ	252.6	249.2	302.4	291.7	
DAY = 21	10 GHZ	263.3	263.6	308.5	288.3	
HR = 12	18 GHZ	274.6	279.0	306.3	292.3	
MIN = 0	37 GHZ	240.9	237.4	308.4	292.7	
REC # 9,	INCLIN = 0	T (V)	T (H)	HOT LD.	ANT.	TEMP=6C
MON = 3	5 GHZ	251.3	248.2	303.8	292.8	
DAY = 21	10 GHZ	265.4	265.3	309.6	289.6	
HR = 12	18 GHZ	276.5	279.9	307.6	294.0	
MIN = 9	37 GHZ	241.0	235.9	309.6	293.8	
REC # 10,	INCLIN = 0	T (V)	T (H)	HOT LD.	ANT.	TEMP=6C
MON = 3	5 GHZ	252.3	247.9	304.7	293.6	
DAY = 21	10 GHZ	265.3	265.7	310.2	290.4	
HR = 12	18 GHZ	247.6	252.6	308.4	295.0	
MIN = 15	37 GHZ	238.6	235.9	310.4	294.5	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	TEMP
REC # 11,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	TEMP=6C
MON =	21				5 GHZ	252.9	249.3	305.9	294.6	
DAY =	12				10 GHZ	266.2	267.0	311.1	291.4	
HR =	24				18 GHZ	243.9	250.0	309.5	296.5	
MIN =					37 GHZ	238.0	234.9	311.5	295.5	
REC # 12,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	TEMP=5.5C
MON =	21				5 GHZ	259.0	252.4	306.9	295.5	
DAY =	12				10 GHZ	267.3	268.1	311.8	292.3	
HR =	32				18 GHZ	253.7	260.7	310.4	297.6	
MIN =					37 GHZ	236.9	235.2	312.3	296.4	
REC # 13,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	TEMP=6C
MON =	21				5 GHZ	251.4	245.7	307.5	296.1	
DAY =	12				10 GHZ	267.9	267.8	312.3	293.0	
HR =	38				18 GHZ	242.5	248.7	311.0	298.4	
MIN =					37 GHZ	236.9	234.7	312.9	296.9	
REC # 14,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	37 GHZ DATA NOT COPIED
MON =	21				5 GHZ	253.3	246.3	308.2	296.8	
DAY =	12				10 GHZ	268.6	269.0	312.8	293.7	
HR =	45				18 GHZ	245.2	250.6	311.7	299.2	
MIN =					37 GHZ	235.9	234.0	313.5	297.6	
REC # 15,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	37 GHZ DATA NOT COPIED
MON =	21				5 GHZ	252.8	245.8	309.0	297.7	
DAY =	12				10 GHZ	268.0	268.8	313.3	294.5	
HR =	54				18 GHZ	245.6	251.7	312.4	300.1	
MIN =					0 GHZ	0.0	0.0	314.2	298.3	
REC # 16,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	TEMP=4C
MON =	21				5 GHZ	252.2	245.1	309.4	298.2	
DAY =	13				10 GHZ	268.2	269.5	313.6	295.0	
HR =	0				18 GHZ	248.6	251.0	312.8	300.6	
MIN =					37 GHZ	234.4	236.5	314.5	298.7	
REC # 17,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	TEMP=4C
MON =	21				5 GHZ	251.9	244.7	310.1	299.1	
DAY =	13				10 GHZ	269.0	268.8	314.1	295.8	
HR =	12				18 GHZ	248.6	253.4	313.4	301.4	
MIN =					37 GHZ	233.4	234.4	315.1	299.5	
REC # 18,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	TEMP=4C
MON =	21				5 GHZ	252.6	244.8	310.5	299.7	
DAY =	13				10 GHZ	268.5	269.3	314.3	296.3	
HR =	20				18 GHZ	251.2	255.8	313.8	301.8	
MIN =					37 GHZ	233.5	233.1	315.4	300.0	
REC # 19,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	TEMP=4C
MON =	21				5 GHZ	250.9	243.4	310.7	300.1	
DAY =	13				10 GHZ	268.5	269.3	314.4	296.7	
HR =	27				18 GHZ	251.6	256.0	314.0	302.0	
MIN =					37 GHZ	232.5	233.2	315.6	300.4	
REC # 20,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	TEMP=4.5C
MON =	21				5 GHZ	250.8	242.5	310.8	300.5	
DAY =	13				10 GHZ	267.5	268.2	314.5	297.1	
HR =	34				18 GHZ	251.7	257.9	314.1	302.1	
MIN =					37 GHZ	232.1	233.6	315.7	300.7	

1978 SNMR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 3/21/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	TEMP	LN2
21	3	21	13	44	= 0	247.7	239.9	307.3	300.7	TEMP=6C	
					5 GHZ	264.1	264.2	311.6	295.7		
					10 GHZ	255.9	257.4	310.5	295.9		
					18 GHZ	231.9	231.1	312.9	300.4		
22	3	21	13	50	= 0	247.0	239.2	307.3	301.0	TEMP=6C	
					5 GHZ	262.6	263.7	311.6	295.9		
					10 GHZ	251.2	256.4	310.6	296.0		
					18 GHZ	231.7	233.3	312.9	300.6		
23	3	21	14	2	= 0	251.1	244.8	307.4	301.5	TEMP=6C	
					5 GHZ	266.4	267.2	311.6	296.3		
					10 GHZ	253.7	259.6	310.7	296.3		
					18 GHZ	249.3	251.9	312.9	300.9		
24	3	21	14	9	= 0	246.5	238.6	307.5	301.7	TEMP=6C	
					5 GHZ	262.6	263.1	311.6	296.6		
					10 GHZ	254.1	259.2	310.8	296.5		
					18 GHZ	240.5	240.0	312.8	301.0		
25	3	21	14	40	= 10	259.7	255.1	307.9	302.2	TEMP=10C	LN2 REFILLED
					5 GHZ	267.8	268.7	311.6	297.4		
					10 GHZ	250.4	257.3	311.1	297.8		
					18 GHZ	264.3	265.4	312.7	301.2		
26	3	21	14	48	= 0	260.5	256.7	308.0	302.2	TEMP=10C	
					5 GHZ	267.6	268.0	311.6	297.6		
					10 GHZ	250.7	255.6	311.2	298.3		
					18 GHZ	263.2	264.0	312.6	301.1		
27	3	21	14	55	= 0	261.4	257.0	308.1	302.2	TEMP=10C	
					5 GHZ	267.0	267.9	311.6	297.7		
					10 GHZ	250.7	255.1	311.3	298.8		
					18 GHZ	262.2	263.3	312.5	301.0		
28	3	21	15	3	= 0	262.7	259.1	308.2	302.1	TEMP=8C	
					5 GHZ	268.3	268.7	311.6	297.9		
					10 GHZ	250.0	254.7	311.5	299.8		
					18 GHZ	260.8	262.6	312.3	300.8		
29	3	21	15	10	= 0	262.9	259.3	308.3	302.0	TEMP=8C	
					5 GHZ	267.9	268.8	311.6	298.0		
					10 GHZ	247.3	252.3	311.5	300.3		
					18 GHZ	260.6	262.5	312.2	300.7		
30	3	21	15	17	= 0	264.1	260.0	308.3	301.9	TEMP=8C	
					5 GHZ	268.0	268.4	311.6	298.1		
					10 GHZ	245.6	254.7	311.6	300.7		
					18 GHZ	259.0	262.7	312.1	300.5		

1978 SMMR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 3/21/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	TEMP	TIME
31	3	21	15	25	0	264.8	260.8	308.4	301.8	8C	
					5 GHZ	268.0	268.0	311.6	298.2		
					10 GHZ	248.7	254.4	311.7	301.0		
					37 GHZ	259.6	263.2	312.1	300.3		
32	3	21	15	32	0	265.5	261.6	308.5	301.6		
					5 GHZ	268.1	268.1	311.6	298.2		
					10 GHZ	247.4	253.5	311.7	301.1		
					37 GHZ	259.4	261.8	312.0	300.1		
33	3	21	15	40	0	266.0	262.8	308.5	301.4		
					5 GHZ	268.1	268.5	311.6	298.1		
					10 GHZ	247.2	252.9	311.7	301.2		
					0 GHZ	0.0	0.0	312.0	299.9		
34	3	21	15	52	0	266.0	262.2	308.4	300.5		
					5 GHZ	268.0	268.9	311.6	297.5		
					10 GHZ	254.8	257.0	311.3	299.7		
					37 GHZ	256.2	256.8	312.1	298.9		
35	3	21	16	0	0	266.4	262.8	308.4	300.3		
					5 GHZ	268.1	268.5	311.6	297.4		
					10 GHZ	252.9	258.1	311.2	299.6		
					37 GHZ	255.2	258.7	312.1	298.7		
36	3	21	16	6	0	265.8	262.1	308.4	300.2		
					5 GHZ	268.0	268.4	311.6	297.4		
					10 GHZ	253.1	258.3	311.2	299.5		
					37 GHZ	253.9	254.5	312.1	298.6		
37	3	21	16	14	0	265.8	262.1	308.4	300.1		
					5 GHZ	267.9	267.9	311.6	297.3		
					10 GHZ	252.1	257.2	311.2	299.4		
					37 GHZ	253.1	256.6	312.1	298.5		
38	3	21	16	20	0	266.4	262.1	308.4	300.1		
					5 GHZ	268.2	268.1	311.6	297.3		
					10 GHZ	252.9	257.9	311.1	299.4		
					37 GHZ	252.2	254.1	312.1	298.5		
39	3	21	16	28	0	265.6	262.0	308.4	300.1		
					5 GHZ	267.5	268.0	311.6	297.3		
					10 GHZ	253.6	255.8	311.1	299.4		
					37 GHZ	251.7	253.5	312.1	298.5		

END OF RUN.

37 GHZ DATA NOT COPIED ON PAGE

TEMP=8C

TEMP=6C

TIME ESTIMATED

TEMP=6C

TEMP=5.5C
LAST REC

1978 SMR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 3/23/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	Notes
31	3	23	13	27	20	269.5	261.9	306.0	291.4	LIGHT SNOW FALLING AGAIN TEMP=2C
					5 GHZ	262.9	260.6	311.1	289.6	
					10 GHZ	268.7	272.9	307.9	289.8	
					18 GHZ	264.3	263.1	310.5	290.1	
					37 GHZ					
32	3	23	13	34	0	268.1	264.3	305.9	291.1	TEMP=1.3C
					5 GHZ	264.3	264.7	311.1	289.3	
					10 GHZ	270.8	275.3	307.6	289.7	
					18 GHZ	258.6	255.7	310.5	289.7	
					37 GHZ					
33	3	23	13	42	41	270.9	252.2	305.7	290.5	SNOWING AGAIN TEMP=1C CLOUDY 40-42 (FREE HANG)
					5 GHZ	263.6	256.7	311.1	288.8	
					10 GHZ	268.1	265.1	307.0	290.9	
					18 GHZ	264.4	262.1	310.5	289.1	
					37 GHZ					
34	3	23	13	49	20	269.2	264.2	305.6	290.2	SNOW AND SUN TOGETHER
					5 GHZ	261.9	260.0	311.1	288.5	
					10 GHZ	270.8	274.3	306.7	290.6	
					18 GHZ	264.1	263.3	310.4	288.7	
					37 GHZ					
35	3	23	13	56	0	267.2	264.5	305.5	289.9	TEMP=1C PARTIAL SUN
					5 GHZ	264.8	265.2	311.1	288.2	
					10 GHZ	271.9	278.1	306.4	290.2	
					18 GHZ	255.6	253.3	310.4	288.3	
					37 GHZ					
36	3	23	14	4	41	271.1	254.7	305.4	289.5	40-42 (FREE HANG) TEMP=1C SUN FILTERED MORE
					5 GHZ	262.7	255.4	311.1	287.8	
					10 GHZ	278.0	276.3	306.1	289.6	
					18 GHZ	263.3	260.4	310.3	287.9	
					37 GHZ					
37	3	23	14	12	20	268.8	264.7	305.3	289.2	TEMP=1C CLOUDY AGAIN
					5 GHZ	260.2	258.3	311.1	287.5	
					10 GHZ	278.2	282.7	305.7	288.8	
					18 GHZ	263.4	261.8	310.2	287.4	
					37 GHZ					
38	3	23	14	20	0	266.5	263.2	305.2	288.8	TEMP=1C CLOUDY, SNOW
					5 GHZ	262.5	262.4	311.1	287.1	
					10 GHZ	280.3	285.6	305.3	287.9	
					18 GHZ	259.4	255.0	310.1	287.0	
					37 GHZ					
39	3	23	14	27	41	270.6	254.3	305.1	288.5	40-42 (FREE HANG) TEMP=1C CLOUDY
					5 GHZ	262.5	255.6	311.1	286.8	
					10 GHZ	278.5	277.9	305.0	287.0	
					18 GHZ	263.4	262.0	310.0	286.7	
					37 GHZ					
40	3	23	14	34	20	268.9	264.2	305.0	288.2	RESTARTED COUNTER EOP RECORDS 1-18 LISTED HERE AS 40-57 REC (1) FRASER TEMP=1C
					5 GHZ	259.8	257.9	311.1	286.5	
					10 GHZ	280.8	284.4	304.7	286.0	
					18 GHZ	262.2	261.6	309.9	286.3	
					37 GHZ					

1978 SNMR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 3/23/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	REMARKS
REC # 41,	3	23	14	42	0	265.1	261.9	304.9	287.8	REC(2) CLOUDY TEMP=-1C
					5 GHZ	262.5	262.9	311.1	286.1	
					18 GHZ	280.8	286.6	304.3	284.7	
					37 GHZ	257.3	256.1	309.8	285.9	
REC # 42,	3	23	14	51	41	269.1	254.3	304.5	286.5	REC(3) CLOUDY FREE HANG - ASSUME ANGLE=41
					5 GHZ	262.9	255.9	311.1	284.8	
					18 GHZ	278.4	278.8	302.9	277.7	
					37 GHZ	262.1	261.0	309.2	284.5	
REC # 43,	3	23	14	56	20	267.6	262.9	304.4	286.3	REC(4) TEMP=1.5C SNOW STARTING AGAIN
					5 GHZ	259.5	257.6	311.1	284.6	
					18 GHZ	281.2	284.8	302.6	276.8	
					37 GHZ	259.0	257.3	309.1	284.3	
REC # 44,	3	23	15	3	0	263.8	260.7	304.3	286.0	REC(5) TEMP=0C HEAVY SNOW
					5 GHZ	262.2	262.6	311.1	284.3	
					18 GHZ	283.2	288.2	302.4	275.8	
					37 GHZ	254.8	252.5	309.0	284.0	
REC # 45,	3	23	15	35	0	266.9	265.2	304.2	285.6	REPEAT OF THIS MORNINGS SWATH SCAN REC(6) TEMP=0C HEAVY SNOW
					5 GHZ	263.3	263.2	311.1	283.9	
					18 GHZ	285.7	291.2	301.9	273.8	
					37 GHZ	261.3	260.3	308.8	283.5	
REC # 46,	3	23	15	42	10	265.4	263.6	304.2	285.6	VERY POOR VISIBILITY, HEAVY SNOW REC(7) TEMP=0C
					5 GHZ	261.6	261.9	311.1	283.9	
					18 GHZ	287.4	293.2	301.9	273.8	
					37 GHZ	263.4	261.7	308.8	283.5	
REC # 47,	3	23	15	51	20	264.4	261.0	304.2	285.6	REC(8) SAME
					5 GHZ	262.0	261.0	311.1	283.9	
					18 GHZ	287.9	292.5	301.9	273.8	
					37 GHZ	264.6	263.5	308.8	283.5	
REC # 48,	3	23	15	56	30	267.0	260.8	304.2	285.6	REC(9) SAME
					5 GHZ	262.1	258.4	311.1	283.9	
					18 GHZ	289.4	292.6	301.9	273.8	
					37 GHZ	263.9	262.0	308.8	283.5	
REC # 49,	3	23	16	3	41	269.8	260.0	304.2	285.6	REC(10) STILL HEAVY SNOW TEMP=-1C 40-42 (FREE HANG)
					5 GHZ	264.1	259.4	311.1	283.9	
					18 GHZ	287.9	292.7	301.9	273.8	
					37 GHZ	262.7	261.2	308.8	283.5	
REC # 50,	3	23	16	16	45	270.8	258.9	304.2	285.6	REC(11) HEAVY SNOW
					5 GHZ	264.1	259.5	311.1	283.9	
					18 GHZ	289.0	292.3	301.9	273.8	
					37 GHZ	261.6	260.2	308.8	283.5	

1978 SMNR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 3/23/78

REC #	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 51,	INCLIN = 50					
MON = 3	5 GHZ	271.1	256.2	304.2	285.6	REC(12)
DAY = 23	10 GHZ	264.0	260.8	311.1	283.9	
HR = 16	18 GHZ	286.6	290.3	301.9	273.8	
MIN = 21	37 GHZ	261.6	257.6	308.8	283.5	
REC # 52,	INCLIN = 55					
MON = 3	5 GHZ	271.4	254.3	304.2	285.6	REC(13) HEAVY SNOW
DAY = 23	10 GHZ	263.3	259.6	311.1	283.9	TEMP=0C
HR = 16	18 GHZ	285.9	289.7	301.9	273.8	
MIN = 26	37 GHZ	260.7	248.7	308.8	283.5	
REC # 53,	INCLIN = 60					
MON = 3	5 GHZ	269.6	251.4	304.2	285.6	REC(14) HEAVY SNOW
DAY = 23	10 GHZ	260.7	249.3	311.1	283.9	
HR = 16	18 GHZ	279.6	280.6	301.9	273.8	
MIN = 32	37 GHZ	258.9	241.6	308.8	283.5	
REC # 54,	INCLIN = 65					
MON = 3	5 GHZ	269.3	252.0	304.2	285.6	REC(15) SNOWING HARD
DAY = 23	10 GHZ	260.1	247.7	311.1	283.9	
HR = 16	18 GHZ	279.2	281.5	301.9	273.8	
MIN = 43	37 GHZ	258.0	233.7	308.8	283.5	
REC # 55,	INCLIN = 70					
MON = 3	5 GHZ	265.9	250.5	304.2	285.6	REC(16) SNOWING HARD
DAY = 23	10 GHZ	258.0	239.3	311.1	283.9	TEMP=0C
HR = 16	18 GHZ	274.4	265.2	301.9	273.8	
MIN = 50	37 GHZ	254.6	233.5	308.8	283.5	
REC # 56,	INCLIN = 75					
MON = 3	5 GHZ	262.2	249.4	304.2	285.6	REC(17) SAME
DAY = 23	10 GHZ	254.1	231.1	311.1	283.9	
HR = 16	18 GHZ	269.8	254.0	301.9	273.8	
MIN = 56	37 GHZ	250.5	227.5	308.8	283.5	
REC # 57,	INCLIN = 80					
MON = 3	5 GHZ	253.3	246.4	304.2	285.6	REC(18) LAST RECORD
DAY = 23	10 GHZ	245.7	219.4	311.1	283.9	HEAVY SNOW
HR = 17	18 GHZ	258.3	238.3	301.9	273.8	
MIN = 1	37 GHZ	243.4	219.0	308.8	283.5	

END OF RUN.

1978 SMNR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 3/24/78

REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
1,	3	24	9	14	41	260.2	250.7	296.4	270.6	LOCATION FRASER, HAZY SUN ANTENNAS AT 40-42 (FREE HANG) SAME SPOT AS PREVIOUS SNOW 32 IN. DEEP FOR 37, 18, 5, AND X
					5 GHZ	260.1	246.0	311.1	270.8	
					18 GHZ	269.6	261.8	287.7	271.6	
					37 GHZ	228.8	224.0	296.7	270.0	
2,	3	24	9	16	20	253.0	249.9	296.4	270.6	
					5 GHZ	259.7	256.4	311.1	270.8	
					18 GHZ	271.9	275.9	287.7	271.6	
					37 GHZ	228.2	224.7	296.7	270.0	
3,	3	24	9	18	0	250.8	251.9	296.4	270.6	37 GHZ V AND H DATA NOT CLEAR
					5 GHZ	261.0	261.0	311.1	270.8	
					18 GHZ	272.5	276.3	287.7	271.6	
					37 GHZ	233.0	232.0	296.7	270.0	
4,	3	24	9	50	0	240.7	241.4	296.4	270.6	32 IN. SNOW REMOVED BARE GROUND
					5 GHZ	251.2	250.5	311.1	270.8	
					37 GHZ	285.7	272.3	287.7	271.6	
					18 GHZ	228.6	241.0	296.7	270.0	
5,	3	24	9	52	20	237.7	232.7	296.4	270.6	BARE GROUND
					5 GHZ	252.1	248.7	311.1	270.8	
					18 GHZ	267.0	268.2	287.7	271.6	
					37 GHZ	247.8	242.2	296.7	270.0	
6,	3	24	9	54	41	248.0	234.2	296.4	270.6	ANTENNAS AT 40-42 (FREE HANG) BOOM LOWERED TO NARROW BEAM DROPPED 10 DEGREES 7 FT. SNOW REMOVED
					5 GHZ	257.3	252.2	311.1	270.8	
					18 GHZ	270.9	267.1	287.7	271.6	
					37 GHZ	247.7	240.7	296.7	270.0	
7,	3	24	10	0	41	252.5	242.2	296.4	270.6	WITH BOOM IN ORIGINAL POSITION SNOW REMOVED LAST RECORD.
					5 GHZ	259.1	256.3	311.1	270.8	
					18 GHZ	267.2	265.4	287.7	271.6	
					37 GHZ	246.1	241.5	296.7	270.0	

END OF RUN.

1978 SMNR SNOW EXPERIMENT - BRIGHTNESS TEMPERATURES FOR 3/28/78

REC # 1, 3	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	5 GHZ	266.9	265.7	300.6	283.8	STEAMBOAT SPRINGS AREA 1 HAYSTACK
DAY = 9	10 GHZ	293.5	286.4	311.1	282.7	2-3 DEGREES OFF NADIR
HR = 25	18 GHZ	257.9	268.1	298.5	284.4	SNOW 25.5 IN. DEEP
	37 GHZ	222.1	222.2	304.6	282.8	10 FT. HIGH AIR TEMP=1C
REC # 2, 3	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	5 GHZ	267.6	266.3	300.6	283.8	25.5 IN. DEEP
DAY = 9	10 GHZ	309.4	278.3	311.1	282.7	TEMP=1C
HR = 25	18 GHZ	258.2	261.8	298.5	284.4	10 FT. HIGH 12 FT.
	37 GHZ	218.0	218.1	304.6	282.8	
REC # 3, 3	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	5 GHZ	268.9	260.9	301.3	284.4	AREA 2
DAY = 9	10 GHZ	261.2	255.0	311.1	283.3	SLANT HEIGHT = 12 FT.
HR = 32	18 GHZ	264.6	259.1	299.3	285.1	24 IN. DEEP
	37 GHZ	230.1	216.9	305.7	283.6	
REC # 4, 3	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	5 GHZ	268.0	260.4	302.2	285.4	AREA 2 SPOT 1 (BY HAYSTACK)
DAY = 9	10 GHZ	261.7	255.6	311.1	284.3	REPEAT OF 30 DEG. WITH FM-CW OFF
HR = 42	18 GHZ	270.1	264.5	300.5	286.2	24 IN. DEEP
	37 GHZ	236.3	224.7	307.2	284.7	TEMP=1C
REC # 5, 3	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	5 GHZ	266.4	266.1	302.4	285.6	SPOT 1 AREA 1
DAY = 9	10 GHZ	260.3	261.0	311.1	284.5	10 FT. FROM SNOW
HR = 44	18 GHZ	273.1	274.5	300.8	286.4	FM CW OFF
	37 GHZ	240.1	238.2	307.5	284.9	
REC # 6, 3	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	5 GHZ	266.5	256.2	302.5	285.8	AREA 1 SPOT 3
DAY = 9	10 GHZ	260.7	256.3	311.1	284.7	SLANT HEIGHT 10 FT.
HR = 46	18 GHZ	267.2	260.5	301.0	286.6	27.5 IN
	37 GHZ	231.8	221.8	307.7	285.1	
REC # 7, 3	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	5 GHZ	270.4	242.4	303.3	286.8	AREA 1 SPOT 4 (HAYSTACK)
DAY = 9	10 GHZ	262.0	253.8	311.1	285.5	TEMP=.5C, VERTICAL DISTANCE 10 FT.
HR = 55	18 GHZ	277.5	260.1	302.0	287.6	37 GHZ 39,38,37.5
	37 GHZ	245.4	200.0	308.9	286.2	
REC # 8, 3	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	5 GHZ	273.1	251.4	303.7	287.5	AREA 2 SPOT 2 (HAYSTACK)
DAY = 10	10 GHZ	262.5	259.1	311.1	286.1	37 GHZ 25.3 IN. ALL OTHERS 25 IN.
HR = 1	18 GHZ	276.9	262.8	302.7	288.3	SLANT VERTICAL
	37 GHZ	245.6	208.6	309.6	286.9	
REC # 9, 3	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	5 GHZ	272.4	248.3	303.9	287.8	AREA 3 SPOT 1 (HAYSTACK)
DAY = 10	10 GHZ	262.8	258.9	311.1	286.4	10 FT. VERTICAL 20 FT. SLANT
HR = 4	18 GHZ	277.1	263.7	303.0	288.7	25 IN. DEEP
	37 GHZ	247.2	209.3	309.9	287.2	
REC # 10, 3	INCLIN = 140	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	0 GHZ	0.0	0.0	304.3	288.4	SKY CAL
DAY = 10	10 GHZ	-0.4	0.3	311.2	286.9	
HR = 9	18 GHZ	4.2	2.7	303.6	289.3	
	37 GHZ	15.8	26.3	310.4	287.8	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 11,					INCLIN = 140	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	2.3	1.2	304.7	289.2	STEAMBOAT SPRINGS
DAY = 28					10 GHZ	0.1	0.8	311.2	287.5	SKY CAL
HR = 10					18 GHZ	4.0	2.7	304.2	290.0	
MIN = 15					37 GHZ	12.7	27.0	311.0	288.5	
REC # 11,					INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	243.9	244.3	305.6	291.1	AREA 1 BRIGHT SUN
DAY = 28					10 GHZ	249.9	250.0	311.3	289.1	SNOW REMOVED FROM GROUND AND GROUND
HR = 10					18 GHZ	267.7	271.6	305.8	291.9	SCANNED WITH ANTENNAS BAND BY BAND.
MIN = 30					37 GHZ	257.8	255.3	312.1	290.3	
REC # 12,					INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	270.0	231.8	307.5	301.1	AREA 3 (FURTHER BEHIND TRUCK)
DAY = 28					10 GHZ	265.5	264.4	312.1	296.4	FULLY EXTENDED BOOM 9 FT. HIGH
HR = 11					18 GHZ	252.1	243.2	311.6	301.1	37 GHZ 30 IN. DEEP
MIN = 38					37 GHZ	259.5	229.7	313.1	298.8	X BAND 29 IN. DEEP, C BAND 30 IN.
REC # 13,					INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	273.6	249.1	307.5	301.1	AREA 4 RIGHT OF OTHER AREA
DAY = 28					10 GHZ	265.7	263.2	312.1	296.4	28, 26.5, 25, 25
HR = 11					18 GHZ	254.7	246.1	311.6	301.1	
MIN = 44					37 GHZ	259.6	230.8	313.1	298.8	
REC # 14,					INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	270.8	238.5	307.5	301.1	AREA 5 RIGHT OF OTHER AREA
DAY = 28					10 GHZ	264.4	262.4	312.1	296.4	FROM 37 26, 26, 26, 26 INCHES
HR = 11					18 GHZ	249.7	237.0	311.6	301.1	TEMP=3.5C
MIN = 50					37 GHZ	258.3	231.5	313.1	298.8	
REC # 15,					INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	271.8	268.9	307.5	301.1	AREA 3
DAY = 28					10 GHZ	266.8	266.7	312.1	296.4	DEPTHS 37 TO X 28, 28.5, 28.5 IN.
HR = 11					18 GHZ	253.4	258.9	311.6	301.1	10 FT. HIGH
MIN = 56					37 GHZ	257.5	259.2	313.1	298.8	TEMP=3C
REC # 16,					INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	267.7	265.0	307.5	301.1	AREA 4
DAY = 28					10 GHZ	263.7	264.0	312.1	296.4	DEPTHS 37 TO X 26, 24, 24 IN.
HR = 12					18 GHZ	254.2	258.5	311.6	301.1	
MIN = 0					37 GHZ	256.3	258.6	313.1	298.8	
REC # 17,					INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	264.0	243.9	307.5	301.1	AREA 4
DAY = 28					10 GHZ	265.7	264.6	312.1	296.4	29, 29, 28.5 IN.
HR = 12					18 GHZ	250.1	247.2	311.6	301.1	
MIN = 6					37 GHZ	256.5	246.5	313.1	298.8	
REC # 18,					INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	269.4	257.6	307.5	301.1	AREA 5
DAY = 28					10 GHZ	266.8	265.7	312.1	296.4	26, 25.5, 25
HR = 12					18 GHZ	255.2	253.5	311.6	301.1	
MIN = 9					37 GHZ	257.9	248.0	313.1	298.8	
REC # 19,					INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 3					5 GHZ	266.4	250.5	307.5	301.1	MIDWAY BETWEEN PREVIOUS 2
DAY = 28					10 GHZ	266.2	266.1	312.1	296.4	26, 25.5, 25
HR = 12					18 GHZ	250.8	250.2	311.6	301.1	
MIN = 11					37 GHZ	256.3	243.6	313.1	298.8	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
20	3	28	12	18	0	268.6	265.0	307.5	301.1	SWATH SCAN
					5 GHZ	266.8	267.7	312.1	296.4	DEPTH 27 IN.
					10 GHZ	256.7	262.9	311.6	301.1	
					18 GHZ	259.9	263.4	313.1	298.8	
21	3	28	12	24	20	264.0	257.2	307.5	301.1	DEPTH 29 IN.
					5 GHZ	265.5	264.4	312.1	296.4	TEMP=5C
					10 GHZ	255.9	258.1	311.6	301.1	
					18 GHZ	262.7	263.9	313.1	298.8	
22	3	28	12	27	41	265.5	238.3	307.5	301.1	DEPTH 30, 29.5, 30 IN.
					5 GHZ	264.7	261.7	312.1	296.4	40-42 DEGREES (FREE HANG)
					10 GHZ	253.6	255.0	311.6	301.1	
					18 GHZ	261.9	255.8	313.1	298.8	
23	3	28	12	31	60	269.8	194.4	307.5	301.1	DEPTH 28, 29, 29
					5 GHZ	260.4	247.3	312.1	296.4	10 FT HIGH
					10 GHZ	253.4	248.4	311.6	301.1	
					18 GHZ	258.2	210.9	313.1	298.8	
24	3	28	12	37	70	267.4	183.4	307.5	301.1	DEPTH 29, 29, 28.5
					5 GHZ	256.4	233.3	312.1	296.4	10 FT. HIGH
					10 GHZ	250.2	247.3	311.6	301.1	
					18 GHZ	256.1	205.5	313.1	298.8	
25	3	28	12	39	80	245.7	174.4	307.5	301.1	28 IN. DEEP
					5 GHZ	232.1	207.1	312.1	296.4	TEMP=6C
					10 GHZ	228.9	224.5	311.6	301.1	
					18 GHZ	245.2	199.2	313.1	298.8	
26	3	28	12	41	85	240.1	186.1	307.5	301.1	27 IN. DEEP
					5 GHZ	246.6	233.2	312.1	296.4	10 FT. HIGH
					10 GHZ	237.8	238.2	311.6	301.1	
					18 GHZ	251.5	235.8	313.1	298.8	
27	3	28	12	56	82	342.6	340.9	307.5	301.1	12 FT. SLANT
					5 GHZ	334.4	338.2	312.1	296.4	ALUMINUM PLATE 8 X 16
					10 GHZ	75.3	67.6	311.6	301.1	
					18 GHZ	87.9	88.2	313.1	298.8	
28	3	28	13	0	66	0.0	0.0	307.5	301.1	STEAMBOAT SPRINGS
					0 GHZ	0.0	0.0	312.1	296.4	ALUMINUM PLATE 8 X 16
					18 GHZ	63.0	54.8	311.6	301.1	NO DATA FOR 5 AND 10 GHZ
					37 GHZ	50.9	59.9	313.1	298.8	IN RECORDS 28 THROUGH 47
29	3	28	13	3	56	0.0	0.0	307.5	301.1	15 FT. SLANT
					0 GHZ	0.0	0.0	312.1	296.4	8 X 16 AL PLATE
					18 GHZ	55.0	50.0	311.6	301.1	
					37 GHZ	31.4	46.7	313.1	298.8	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
30	3	28	13	7	58	0.0	0.0	307.5	301.1	STEAMBOAT
					0 GHZ	3.0	0.0	312.1	296.4	8 X 16 AL PLATE
					18 GHZ	54.4	50.0	311.6	301.1	
					37 GHZ	35.1	51.0	313.1	298.8	
31	3	28	13	10	42	0.0	0.0	307.5	301.1	42 DEG. (FREE HANG)
					0 GHZ	0.0	0.0	312.1	296.4	8 X 16 PLATE
					18 GHZ	43.6	43.8	311.6	301.1	
					37 GHZ	31.8	47.7	313.1	298.8	
32	3	28	13	17	22	0.0	0.0	307.5	301.1	8 X 16 PLATE
					0 GHZ	0.0	0.0	312.1	296.4	TEMP=6C
					18 GHZ	46.3	45.1	311.6	301.1	
					37 GHZ	28.4	46.1	313.1	298.8	
33	3	28	13	21	40	0.0	0.0	307.5	301.1	8 X 16 PLATE
					0 GHZ	0.0	0.0	312.1	296.4	TIME WAS APPROXIMATED
					18 GHZ	47.8	45.9	311.6	301.1	
					37 GHZ	30.0	43.3	313.1	298.8	
34	3	28	13	25	30	0.0	0.0	307.5	301.1	8 X 16 PLATE
					0 GHZ	0.0	0.0	312.1	296.4	TIME WAS APPROXIMATED
					18 GHZ	43.2	42.8	311.6	301.1	TEMP=6.5C
					37 GHZ	28.9	46.0	313.1	298.8	
35	3	28	13	30	20	0.0	0.0	307.5	301.1	8 X 16 PLATE
					0 GHZ	0.0	0.0	312.1	296.4	12 FT.
					18 GHZ	37.4	39.0	311.6	301.1	
					37 GHZ	21.4	39.5	313.1	298.8	
36	3	28	13	36	10	0.0	0.0	307.5	301.1	STEAMBOAT
					0 GHZ	0.0	0.0	312.1	296.4	8 X 16 PLATE
					18 GHZ	41.1	43.3	311.6	301.1	
					37 GHZ	11.8	30.3	313.1	298.8	
37	3	28	13	42	0	0.0	0.0	307.5	301.1	STEAMBOAT
					0 GHZ	0.0	0.0	312.1	296.4	8 X 16 PLATE
					18 GHZ	122.3	129.6	311.6	301.1	TIME LISTED AS 1442 CHANGED TO 1342
					37 GHZ	56.8	78.4	313.1	298.8	
38	3	28	13	44	21	0.0	0.0	307.5	301.1	STEAMBOAT
					0 GHZ	0.0	0.0	312.1	296.4	12 FT.
					18 GHZ	77.3	82.2	311.6	301.1	
					37 GHZ	27.3	48.7	313.1	298.8	
39	3	28	13	46	0	0.0	0.0	307.5	301.1	8 X 16 PLATE
					0 GHZ	0.0	0.0	312.1	296.4	4 FT. TEMP=1C
					18 GHZ	98.7	108.8	311.6	301.1	
					37 GHZ	67.8	-20.6	313.1	298.8	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 40,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	0	0	0	0	0 GHZ	0.0	0.0	307.5	301.1	STEAMBOAT
DAY = 13	0	0	0	0	0 GHZ	0.0	0.0	312.1	296.4	8 FT.
HR = 50	18	107.7	115.6	311.6	18 GHZ	107.7	115.6	311.6	301.1	
MIN = 37	37	58.0	77.3	313.1	37 GHZ	58.0	77.3	313.1	298.8	
REC # 41,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	0	0	0	0	0 GHZ	0.0	0.0	307.5	301.1	8 X 16 PLATE
DAY = 13	0	0	0	0	0 GHZ	0.0	0.0	312.1	296.4	6 FT.
HR = 52	18	123.8	130.3	311.6	18 GHZ	123.8	130.3	311.6	301.1	
MIN = 37	37	73.1	96.6	313.1	37 GHZ	73.1	96.6	313.1	298.8	
REC # 42,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	0	0	0	0	0 GHZ	0.0	0.0	307.5	301.1	8 X 16 PLATE
DAY = 13	0	0	0	0	0 GHZ	0.0	0.0	312.1	296.4	10 FT.
HR = 54	18	99.4	102.7	311.6	18 GHZ	99.4	102.7	311.6	301.1	
MIN = 37	37	40.3	61.3	313.1	37 GHZ	40.3	61.3	313.1	298.8	
REC # 43,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	0	0	0	0	0 GHZ	0.0	0.0	307.5	301.1	STEAMBOAT
DAY = 13	0	0	0	0	0 GHZ	0.0	0.0	312.1	296.4	12 FT.
HR = 56	18	98.7	103.8	311.6	18 GHZ	98.7	103.8	311.6	301.1	
MIN = 37	37	16.6	37.9	313.1	37 GHZ	16.6	37.9	313.1	298.8	
REC # 44,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	0	0	0	0	0 GHZ	0.0	0.0	307.5	301.1	STILL NO 5 AND 10 GHZ DATA
DAY = 13	0	0	0	0	0 GHZ	0.0	0.0	312.1	296.4	14 FT.
HR = 57	18	94.2	97.0	311.6	18 GHZ	94.2	97.0	311.6	301.1	
MIN = 37	37	3.7	27.7	313.1	37 GHZ	3.7	27.7	313.1	298.8	
REC # 45,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	0	0	0	0	0 GHZ	0.0	0.0	307.5	301.1	STEAMBOAT
DAY = 13	0	0	0	0	0 GHZ	0.0	0.0	312.1	296.4	16 FT.
HR = 58	18	81.5	79.0	311.6	18 GHZ	81.5	79.0	311.6	301.1	
MIN = 37	37	-13.5	11.8	313.1	37 GHZ	-13.5	11.8	313.1	298.8	
REC # 46,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	0	0	0	0	0 GHZ	0.0	0.0	307.5	301.1	STEAMBOAT
DAY = 13	0	0	0	0	0 GHZ	0.0	0.0	312.1	296.4	20 FT.
HR = 59	18	66.7	68.3	311.6	18 GHZ	66.7	68.3	311.6	301.1	STILL NADIR
MIN = 37	37	-22.8	0.7	313.1	37 GHZ	-22.8	0.7	313.1	298.8	
REC # 47,	3				INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	0	0	0	0	0 GHZ	0.0	0.0	307.5	301.1	SAME
DAY = 14	0	0	0	0	0 GHZ	0.0	0.0	312.1	296.4	22 FT.
HR = 0	18	57.1	57.0	311.6	18 GHZ	57.1	57.0	311.6	301.1	
MIN = 37	37	-7.4	15.7	313.1	37 GHZ	-7.4	15.7	313.1	298.8	
REC # 48,	3				INCLIN = 90	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	5	281.4	283.5	307.5	5 GHZ	281.4	283.5	307.5	301.1	ECCOSORB
DAY = 14	10	279.5	280.0	312.1	10 GHZ	279.5	280.0	312.1	296.4	NO TEMP RECORDED
HR = 12	18	269.5	273.7	311.6	18 GHZ	269.5	273.7	311.6	301.1	
MIN = 37	37	279.1	281.7	313.1	37 GHZ	279.1	281.7	313.1	298.8	
REC # 49,	3				INCLIN = 90	T(V)	T(H)	HOT LD.	ANT.	
MON = 28	5	288.8	289.1	307.5	5 GHZ	288.8	289.1	307.5	301.1	ECCOSORB
DAY = 14	10	287.1	286.8	312.1	10 GHZ	287.1	286.8	312.1	296.4	5 GHZ TEMP = 10 DEG.
HR = 37	18	279.8	284.3	311.6	18 GHZ	279.8	284.3	311.6	301.1	13 DEG. FOR REST
MIN = 37	37	288.0	290.5	313.1	37 GHZ	288.0	290.5	313.1	298.8	

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REC # 50,	INCLIN = 90	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	284.7	282.7	307.5	301.1	15 DEG. C FOR X, 18, AND 37
DAY = 28	10 GHZ	286.7	286.3	312.1	296.4	15.5 DEG. C FOR C BAND
HR = 14	18 GHZ	279.8	284.3	311.6	301.1	ECCOSORB
MIN = 45	37 GHZ	285.1	287.4	313.1	298.8	
REC # 51,	INCLIN = 90	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	284.4	281.6	307.5	301.1	ECCOSORB
DAY = 28	10 GHZ	285.2	285.9	312.1	296.4	16C
HR = 14	18 GHZ	272.4	276.1	311.6	301.1	
MIN = 55	37 GHZ	279.7	279.6	313.1	298.8	
REC # 52,	INCLIN = 90	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	283.6	279.9	307.5	301.1	TIME WAS APPROXIMATED
DAY = 28	10 GHZ	285.7	285.3	312.1	296.4	ECCOSORB
HR = 15	18 GHZ	273.1	276.6	311.6	301.1	17C
MIN = 0	37 GHZ	279.7	278.9	313.1	298.8	LAST RECORD

END OF RUN.

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
1	3	29	7	30	50	269.1	243.8	284.4	267.1	STEAMBOAT SPRINGS AREA 1 ROAD 1 AREA 1 IN FIELD ABOUT 50 YDS FROM 1/4 MILE MARK POS 2 POS 2 33, 33, 33
					5 GHZ	250.8	218.2	295.3	265.9	
					10 GHZ	247.3	220.6	278.5	265.5	
					18 GHZ	131.6	111.9	284.0	266.6	
					37 GHZ					
2	3	29	7	34	50	268.7	249.1	286.0	267.5	STEAMBOAT ROAD 1 POS 1 34, 33, 33.5 TEMP=-6C
					5 GHZ	245.5	207.4	297.3	266.5	
					10 GHZ	256.2	229.5	279.6	266.2	
					18 GHZ	134.3	115.5	285.6	267.0	
					37 GHZ					
3	3	29	7	40	50	269.0	252.2	288.2	268.1	ROAD 1 POS 3 29.5, 30, 30 NO ANGLE LISTED, ASSUME 50
					5 GHZ	245.1	209.0	300.0	267.4	
					10 GHZ	251.2	216.9	281.2	267.3	
					18 GHZ	134.0	116.8	287.9	267.7	
					37 GHZ					
4	3	29	7	44	50	268.5	255.7	289.5	268.5	AREA 1 ROAD 1 BOOM FULLY EXTENDED FROM POS 1 DEPTH 27, 35, 27, 32 IN. LEFT TO RIGHT
					5 GHZ	242.8	215.7	301.7	268.0	
					10 GHZ	256.3	231.4	282.2	268.1	
					18 GHZ	138.4	121.9	289.3	268.1	
					37 GHZ					
5	3	29	7	49	50	268.3	254.2	291.1	269.0	ROAD 1 POS 2 26.5, 27.5, 26, 26.5 TEMP=-5.5C BOOM EXTENDED NO ANGLE LISTED, ASSUME 50
					5 GHZ	244.4	218.5	303.7	268.7	
					10 GHZ	246.2	217.4	283.3	268.9	
					18 GHZ	138.3	123.5	291.0	268.6	
					37 GHZ					
6	3	29	7	52	50	268.6	256.5	292.0	269.3	ROAD 1 POS 3 BOOM EXTENDED DEPTH 26.5, 26.5, 27
					5 GHZ	248.8	233.6	304.8	269.1	
					10 GHZ	241.9	212.3	283.9	269.5	
					18 GHZ	133.5	121.3	291.9	268.9	
					37 GHZ					
7	3	29	8	10	30	299.5	294.8	296.6	271.1	ROAD 1 AREA 1 POS 1 APPROX DEPTH 33.5, 31.5, 30.5
					5 GHZ	243.6	223.0	310.1	271.6	
					10 GHZ	235.3	211.5	287.2	272.4	
					18 GHZ	123.2	116.1	296.5	270.8	
					37 GHZ					
8	3	29	8	20	30	266.5	261.4	298.4	272.1	POS 2 26.5, 27, 27 TEMP=-2C ANGLE APPROX. 30
					5 GHZ	250.2	235.6	312.0	273.0	
					10 GHZ	241.3	239.1	288.6	273.9	
					18 GHZ	133.4	123.6	298.4	271.8	
					37 GHZ					
9	3	29	8	22	30	262.9	257.3	298.7	272.2	POS 3 ANGLE APPROX. 30 DEPTH 27, 27, 28
					5 GHZ	251.8	239.1	312.4	273.2	
					10 GHZ	245.0	227.3	288.9	274.2	
					18 GHZ	134.5	128.3	298.7	272.1	
					37 GHZ					
10	3	29	8	27	30	265.6	262.2	299.4	272.7	POS 1 EXTENDED BOOM DEPTH 26, 26, 25.5 IN.
					5 GHZ	252.5	244.8	313.0	273.9	
					10 GHZ	252.2	235.0	289.4	275.0	
					18 GHZ	129.3	123.4	299.4	272.6	
					37 GHZ					

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REC #	INCLIN	T(V)	T(H)	HOT LD.	ANT.	POS
REC # 11, 3	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	POS 2 EXTENDED BOOM
MON = 29	5 GHZ	265.4	257.5	299.8	273.1	DEPTH 26, 26, 26
DAY = 8	10 GHZ	255.5	243.7	313.4	274.4	
HR = 31	18 GHZ	238.9	223.0	289.8	275.5	
	37 GHZ	131.7	124.6	299.9	273.0	
REC # 12, 3	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	EXTENDED BOOM
MON = 29	5 GHZ	266.4	257.8	300.3	273.6	DEPTH 27, 27, 27
DAY = 8	10 GHZ	251.6	240.1	313.8	275.0	
HR = 36	18 GHZ	247.3	231.9	290.2	276.2	
	37 GHZ	133.6	127.5	300.4	273.5	
REC # 13, 3	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	AREA 1 ROAD 1 POS 1
MON = 29	5 GHZ	264.2	263.0	300.8	274.5	SAME DEPTH AS BEFORE
DAY = 8	10 GHZ	249.5	249.7	314.0	276.1	26, 26, 25.5
HR = 45	18 GHZ	253.9	253.8	290.7	277.4	
	37 GHZ	132.1	133.7	301.0	274.5	
REC # 14, 3	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	POS 2 28.5, 28, 27.5
MON = 29	5 GHZ	263.3	262.6	300.9	274.7	
DAY = 8	10 GHZ	257.0	256.8	313.9	276.3	
HR = 47	18 GHZ	272.0	270.7	290.7	277.7	
	37 GHZ	136.1	139.7	301.0	274.7	
REC # 15, 3	INCLIN = 59	T(V)	T(H)	HOT LD.	ANT.	STEAMBOAT SITE 2 ROAD 1 POS 1
MON = 29	5 GHZ	276.6	259.3	297.6	278.8	BOOM NOT EXTENDED FULLY
DAY = 9	10 GHZ	258.8	247.9	306.6	281.1	DEPTHS 30.0, 29.5, 28.5
HR = 30	18 GHZ	278.6	262.8	289.3	282.4	
	37 GHZ	241.2	203.4	297.8	279.3	
REC # 16, 3	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	ROAD 1 POS 2
MON = 29	5 GHZ	270.5	254.2	297.7	279.3	DEPTH 26.5, 26, 26
DAY = 9	10 GHZ	258.0	251.9	306.5	281.6	NO TIME GIVEN - APPROXIMATED
HR = 35	18 GHZ	279.2	265.9	289.5	282.8	
	37 GHZ	247.3	208.9	297.9	279.8	
REC # 17, 3	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	POS 1 BOOM EXTENDED
MON = 29	5 GHZ	269.4	254.6	297.8	279.8	DEPTH 27.5, 27, 27.5
DAY = 9	10 GHZ	256.7	249.6	306.4	282.1	
HR = 40	18 GHZ	306.6	288.2	289.7	283.2	
	37 GHZ	245.2	210.2	298.1	280.3	
REC # 18, 3	INCLIN = 55	T(V)	T(H)	HOT LD.	ANT.	POS 2
MON = 29	5 GHZ	269.1	245.1	297.9	280.8	
DAY = 9	10 GHZ	258.6	256.2	306.2	283.1	
HR = 50	18 GHZ	274.8	265.4	290.1	283.8	
	37 GHZ	248.6	191.1	298.3	281.3	
REC # 19, 3	INCLIN = 60	T(V)	T(H)	HOT LD.	ANT.	
MON = 29	5 GHZ	260.8	221.9	298.0	281.0	
DAY = 9	10 GHZ	254.0	246.5	306.1	283.3	
HR = 52	18 GHZ	284.6	262.9	290.2	283.9	
	37 GHZ	239.8	170.3	298.4	281.5	
REC # 20, 3	INCLIN = 65	T(V)	T(H)	HOT LD.	ANT.	
MON = 29	5 GHZ	262.5	225.3	298.1	281.4	
DAY = 9	10 GHZ	255.8	247.9	306.1	283.7	
HR = 56	18 GHZ	296.8	273.0	290.4	284.1	
	37 GHZ	241.8	175.6	298.5	281.9	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
21	3	29	10	0	70	251.1	205.6	298.1	281.8	
					5 GHZ	248.3	237.5	306.0	284.1	
					18 GHZ	295.3	267.8	290.6	284.3	
					37 GHZ	230.4	156.1	298.6	282.3	
22	3	29	10	5	75	236.3	188.6	298.3	282.2	TEMP=5C
					5 GHZ	237.0	222.3	306.0	284.5	
					18 GHZ	281.6	248.8	290.8	284.5	
					37 GHZ	220.5	145.2	298.8	282.8	
23	3	29	10	7	80	207.4	162.0	298.3	282.4	
					5 GHZ	201.6	182.9	306.0	284.7	
					18 GHZ	262.4	230.3	290.9	284.6	
					37 GHZ	198.5	130.6	298.9	283.0	
24	3	29	10	15	30	266.6	254.3	298.5	283.2	SITE 2 POS 1
					5 GHZ	260.1	257.3	306.0	285.5	DEPTH 27.5, 27, 27
					18 GHZ	304.9	292.0	291.4	284.8	
					37 GHZ	240.9	221.9	299.2	283.8	
25	3	29	10	17	30	267.6	256.2	298.6	283.4	POS 2
					5 GHZ	259.7	258.2	306.0	285.7	DEPTH 25.5, 26, 25.5
					18 GHZ	291.5	283.6	291.5	284.9	
					37 GHZ	241.1	219.7	299.3	284.0	
26	3	29	10	25	30	265.2	256.7	298.8	284.2	POS 1 EXTENDED
					5 GHZ	259.8	258.3	306.1	286.4	DEPTH 28, 26.5, 27
					18 GHZ	291.9	284.8	292.0	285.1	
					37 GHZ	239.8	221.8	299.6	284.8	
27	3	29	10	32	0	265.1	262.5	299.0	284.9	NORTON JACOBS FIELD SITE 2
					5 GHZ	259.4	259.7	306.2	287.0	ROAD 1 POS 1
					18 GHZ	299.5	296.7	292.4	285.2	DEPTH 30, 32.5, 29.5 IN.
					37 GHZ	244.7	240.5	299.9	285.5	
28	3	29	10	34	0	266.0	264.9	299.1	285.1	ROAD 1 POS 2
					5 GHZ	261.9	262.7	306.2	287.2	DEPTH 28, 26.5, 27 IN.
					18 GHZ	292.8	294.3	292.5	285.2	TEMP=1C
					37 GHZ	242.9	234.3	300.0	285.7	
29	3	29	10	52	0	253.9	250.1	302.3	290.8	ROAD 1 SITE 2 POS 2
					5 GHZ	260.1	261.3	310.4	290.8	SNOW REMOVED AND FILE 28 REMADE
					18 GHZ	280.3	284.9	298.2	280.9	
					37 GHZ	245.8	240.0	304.5	291.0	
30	3	29	12	12	50	272.3	264.8	303.8	294.8	SITE 1 ROAD 2
					5 GHZ	263.1	255.8	311.6	293.9	
					18 GHZ	279.7	280.5	301.1	280.4	
					37 GHZ	256.2	238.4	306.6	294.8	

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REC #	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 31, 3	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 29	5 GHZ	268.5	251.6	303.8	294.8	SITE 1 ROAD 2
DAY = 29	10 GHZ	264.6	262.6	311.6	293.9	DEPTHS 26.5, 27.5, 27
HR = 12	18 GHZ	276.4	277.5	301.1	280.4	
MIN = 25	37 GHZ	251.7	243.9	306.6	294.8	
REC # 32, 3	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 29	5 GHZ	267.4	264.8	303.8	294.8	SITE 1 ROAD 2
DAY = 29	10 GHZ	266.0	266.4	311.6	293.9	DEPTH 26, 25.5, 26
HR = 12	18 GHZ	276.8	281.5	301.1	280.4	
MIN = 28	37 GHZ	252.8	251.6	306.6	294.8	
REC # 33, 3	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 29	5 GHZ	251.5	250.0	303.8	294.8	SITE 1 ROAD 2
DAY = 29	10 GHZ	251.4	252.5	311.6	293.9	SNOW REMOVED SITE 1
HR = 12	18 GHZ	255.5	260.8	301.1	280.4	10 FT. HIGH SNOW SURFACE
MIN = 40	37 GHZ	260.1	260.1	306.6	294.8	
REC # 34, 3	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 29	5 GHZ	255.0	251.3	303.8	294.8	SITE 1 SNOW REMOVED
DAY = 29	10 GHZ	259.9	260.2	311.6	293.9	4 FT. HIGH SNOW SURFACE
HR = 12	18 GHZ	254.3	260.5	301.1	280.4	
MIN = 44	37 GHZ	260.5	257.5	306.6	294.8	
REC # 35, 3	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 29	5 GHZ	262.1	257.9	303.8	294.8	SITE 1 2 FT. FROM SNOW SURFACE
DAY = 29	10 GHZ	265.1	265.0	311.6	293.9	NO TIME GIVEN - APPROXIMATED
HR = 12	18 GHZ	259.9	264.8	301.1	280.4	
MIN = 48	37 GHZ	263.4	260.7	306.6	294.8	
REC # 36, 3	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 29	5 GHZ	265.8	248.2	303.8	294.8	ROAD 2 SITE TO LEFT OF
DAY = 29	10 GHZ	265.2	261.8	311.6	293.9	15 FT. VERTICAL 26.5 IN DEEP
HR = 12	18 GHZ	259.7	264.6	301.1	280.4	23, 24, 24
MIN = 53	37 GHZ	253.9	251.1	306.6	294.8	
REC # 37, 3	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 29	5 GHZ	266.0	229.6	303.8	294.8	STEAMBOAT ROAD 2 SITE 2
DAY = 29	10 GHZ	263.2	257.4	311.6	293.9	DEPTH 27.5, 27.5, 26
HR = 13	18 GHZ	258.2	260.8	301.1	280.4	
MIN = 2	37 GHZ	252.9	243.5	306.6	294.8	
REC # 38, 3	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 29	5 GHZ	269.2	237.1	303.8	294.8	ROAD 2 SITE 3
DAY = 29	10 GHZ	264.3	258.4	311.6	293.9	ABOUT 50 YDS SOUTH OF SITES 1 AND 2
HR = 13	18 GHZ	258.1	258.9	301.1	280.4	
MIN = 17	37 GHZ	254.4	242.5	306.6	294.8	
REC # 39, 3	INCLIN = 30	T(V)	T(H)	HOT LD.	ANT.	
MON = 29	5 GHZ	266.4	248.6	303.8	294.8	ROAD 2 SITE 3 20 FT.
DAY = 29	10 GHZ	263.7	259.7	311.6	293.9	DEPTHS 25, 24, 23
HR = 13	18 GHZ	260.7	263.4	301.1	280.4	
MIN = 24	37 GHZ	255.7	253.2	306.6	294.8	
REC # 40, 3	INCLIN = 0	T(V)	T(H)	HOT LD.	ANT.	
MON = 29	5 GHZ	266.2	248.4	303.8	294.8	ROAD 2 SITE 3 8 FT.
DAY = 29	10 GHZ	265.2	261.8	311.6	293.9	DEPTHS 26, 25, 25
HR = 13	18 GHZ	260.0	265.8	301.1	280.4	
MIN = 30	37 GHZ	256.7	254.6	306.6	294.8	

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
REC # 41,	3				0					
MON =	3				5 GHZ	263.8	261.2	303.8	294.8	ROAD 2 SITE 3
DAY =	29				10 GHZ	266.5	265.9	311.6	293.9	PARTIAL BOOM EXTENSION
HR =	13				18 GHZ	259.8	263.9	301.1	280.4	
MIN =	30				37 GHZ	259.3	261.9	306.6	294.8	
REC # 42,	3				0					
MON =	3				5 GHZ	266.2	263.9	303.8	294.8	ROAD 2 SITE 3
DAY =	29				10 GHZ	266.9	267.7	311.6	293.9	FULL BOOM EXTENSION
HR =	13				18 GHZ	263.5	267.1	301.1	280.4	DEPTHS 26, 24, 24
MIN =	34				37 GHZ	254.3	255.8	306.6	294.8	
REC # 43,	3				135					
MON =	3				5 GHZ	10.1	5.8	303.8	294.8	SKY CAL
DAY =	29				10 GHZ	0.2	0.0	311.6	293.9	ROAD 2 SITE 3
HR =	13				18 GHZ	9.7	10.2	301.1	280.4	
MIN =	45				37 GHZ	19.8	31.1	306.6	294.8	
REC # 44,	3				165					
MON =	3				5 GHZ	8.6	5.2	303.8	294.8	SUN
DAY =	29				10 GHZ	1.1	1.4	311.6	293.9	
HR =	13				18 GHZ	16.8	15.4	301.1	280.4	
MIN =	48				37 GHZ	24.7	36.6	306.6	294.8	
REC # 45,	3				89					
MON =	3				5 GHZ	140.7	70.9	303.8	294.8	1 DEGREE FROM HORIZONTAL
DAY =	29				10 GHZ	143.8	93.9	311.6	293.9	SNOW COVERED MTN
HR =	14				18 GHZ	173.2	162.2	301.1	280.4	4 FT. HIGH
MIN =	55				37 GHZ	208.9	152.6	306.6	294.8	RECORDS 46-52 MARKED WITH X S.
REC # 46,	3				0					
MON =	3				5 GHZ	276.7	275.7	303.8	294.8	X
DAY =	29				10 GHZ	277.6	277.1	311.6	293.9	STEAMBOAT
HR =	14				18 GHZ	275.8	281.0	301.1	280.4	8-10
MIN =	2				37 GHZ	276.5	277.1	306.6	294.8	TIME REGRESSES FROM REC. 45
REC # 47,	3				10					
MON =	3				5 GHZ	275.2	271.3	303.8	294.8	X
DAY =	29				10 GHZ	273.0	272.0	311.6	293.9	8-10
HR =	14				18 GHZ	271.9	275.7	301.1	280.4	
MIN =	5				37 GHZ	275.2	276.3	306.6	294.8	
REC # 47,	3				20					
MON =	3				5 GHZ	276.4	269.1	303.8	294.8	X
DAY =	29				10 GHZ	275.5	269.3	311.6	293.9	10-12 FT
HR =	14				18 GHZ	271.8	275.0	301.1	280.4	
MIN =	7				37 GHZ	275.1	275.0	306.6	294.8	
REC # 48,	3				30					
MON =	3				5 GHZ	278.2	262.8	303.8	294.8	X
DAY =	29				10 GHZ	271.0	256.6	311.6	293.9	10-12 FT
HR =	14				18 GHZ	272.9	270.1	301.1	280.4	
MIN =	10				37 GHZ	276.1	273.0	306.6	294.8	
REC # 49,	3				40					
MON =	3				5 GHZ	278.2	254.5	303.8	294.8	X
DAY =	29				10 GHZ	271.9	248.5	311.6	293.9	
HR =	14				18 GHZ	272.7	264.9	301.1	280.4	
MIN =	12				37 GHZ	275.8	270.5	306.6	294.8	

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REC # 50,	INCLIN = 50	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	279.5	247.5	303.8	294.8	X
DAY = 29	10 GHZ	274.2	245.1	311.6	293.9	
HR = 14	18 GHZ	274.2	257.5	301.1	280.4	
MIN = 12	37 GHZ	275.5	264.2	306.6	294.8	
REC # 51,	INCLIN = 60	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	277.4	222.0	303.8	294.8	X
DAY = 29	10 GHZ	273.4	217.8	311.6	293.9	
HR = 14	18 GHZ	267.0	236.1	301.1	280.4	
MIN = 14	37 GHZ	272.6	251.8	306.6	294.8	
REC # 52,	INCLIN = 70	T(V)	T(H)	HOT LD.	ANT.	
MON = 3	5 GHZ	253.5	177.5	303.8	294.8	X
DAY = 29	10 GHZ	252.2	225.2	311.6	293.9	
HR = 14	18 GHZ	248.9	207.5	301.1	280.4	
MIN = 20	37 GHZ	257.3	228.5	306.6	294.8	

END OF RUN.

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REC #	MON	DAY	HR	MIN	INCLIN	T(V)	T(H)	HOT LD.	ANT.	
1	3	30	8	25	30	266.6	260.4	298.8	273.9	STEAMBOAT ROAD 2, POS 4. TEMP=-1C TO NIGHT OF YESTERDAYS PIT 50 FT. BOOM FULLY EXTENDED, V HEIGHT 15-20 FT. DEPTH 24.5, 24, 25.5 IN.
					5 GHZ	250.0	238.6	310.1	275.4	
					10 GHZ	255.9	248.0	288.5	275.1	
					37 GHZ	144.7	141.8	298.3	273.5	
2	3	30	8	30	50	270.3	257.2	299.4	274.8	STEAMBOAT ROAD 2 POS 4 BOOM FULLY EXTENDED ETC. DEPTH 31, 25, 27.5 IN.
					5 GHZ	257.0	248.0	309.7	276.5	
					10 GHZ	258.4	247.6	288.8	276.2	
					37 GHZ	166.0	156.0	298.8	274.5	
3	3	30	8	35	0	265.2	262.7	299.9	275.6	ROAD 2 POS 4 15 FT. HIGH DEPTH 24, 24, 26 IN TEMP=0C
					5 GHZ	251.2	251.0	309.3	277.5	
					10 GHZ	256.8	261.0	289.1	277.1	
					37 GHZ	200.1	197.1	299.3	275.3	
4	3	30	8	50	0	247.9	247.1	300.9	277.1	ROAD 2 POS 4 15 FT. HIGH SNOW REMOVED TEMP=0C
					5 GHZ	245.3	246.9	308.6	279.4	
					10 GHZ	263.4	267.9	289.6	279.0	
					37 GHZ	246.1	243.3	300.2	277.0	
5	3	30	8	52	0	245.7	240.7	301.0	277.3	SAME HT CHANGED TO 10 FT.
					5 GHZ	249.4	251.0	308.5	279.6	
					10 GHZ	263.0	267.7	289.6	279.1	
					37 GHZ	243.8	241.7	300.3	277.1	
6	3	30	9	5	50	278.8	266.4	301.1	277.5	ROAD 2 POS 3 FULLY EXTENDED 20 FT. DEPTHS 24, 23.5, 24 IN.
					5 GHZ	263.2	258.4	308.4	279.9	
					10 GHZ	278.4	278.4	289.7	279.4	
					37 GHZ	248.2	238.4	300.4	277.4	
7	3	30	9	9	30	269.4	260.7	301.1	277.5	ROAD 2 POS 3 BOOM FULLY EXTENDED DEPTHS 22.5, 24, 25 IN.
					5 GHZ	261.0	258.6	308.4	279.9	
					10 GHZ	281.0	282.9	289.7	279.4	
					37 GHZ	250.0	244.1	300.4	277.4	
8	3	30	9	12	0	266.5	265.4	301.1	277.5	ROAD 2 POS 3 DEPTHS 25.5, 27, 25.5
					5 GHZ	259.5	259.4	308.4	279.9	
					10 GHZ	278.5	280.8	289.7	279.4	
					37 GHZ	247.5	243.5	300.4	277.4	

END OF RUN.

BIBLIOGRAPHIC DATA SHEET

1. Report No. NASA TP-1408		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Preliminary Results of Passive Microwave Snow Experiment during February and March 1978				5. Report Date March 1979	
7. Author(s) H. Boyne, A. T. C. Chang, G. Counas, D. Ellerbruch, R. Jones, J. C. Shiue, and R. Wittmann				6. Performing Organization Code 913	
9. Performing Organization Name and Address Goddard Space Flight Center Greenbelt, Maryland 20771				8. Performing Organization Report No. 7802-F22	
12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Washington, D.C. 20546				10. Work Unit No. 177-55-43	
				11. Contract or Grant No.	
15. Supplementary Notes				13. Type of Report and Period Covered Technical Paper	
				14. Sponsoring Agency Code	
16. Abstract The purpose of this experiment was to determine if remote microwave sensing of snowpack data could be used to predict runoff, thereby allowing more efficient management of the water supply. A four-frequency microwave radiometer system was attached to a truck-mounted aerial lift and was used to gather data on snowpacks at three different sites in the Colorado Rocky Mountains. Ground truth data measurements (density, temperature, grain size, hardness, and free-liquid water content) were taken at each site corresponding to each microwave scan. Although the detailed analysis of these data is not yet complete, understanding of microwave sensing has been enhanced considerably.					
17. Key Words (Selected by Author(s)) Microwave radiometry, Multispectral microwave measurements			18. Distribution Statement STAR Category-46 Unclassified-Unlimited		
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 112	22. Price* \$6.50		

National Aeronautics and
Space Administration

Washington, D.C.
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